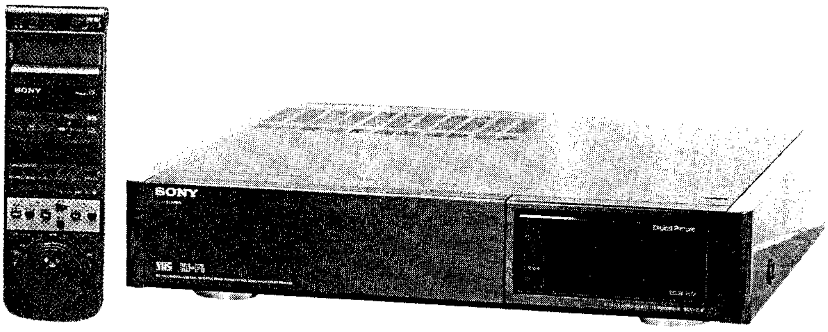
SLV-715/UB/VP
RMT-V5D

SERVICE MANUAL

AEP Model
SL V-715
UK Model
SL V-715UB
Germany Model
SL V-715VP



This photo is SLV-715.

VHS Hi-Fi

SPECIFICATIONS

System

Format	VHS PAL standard
Video recording system	Rotary two-head helical scanning FM system
Video signal	PAL colour (System B and G: SLV-715/715VP System I: SLV-715UB) SECAM B/G colour (SLV-715VP) CCIR monochrome signals 625 lines
Tape speed	SP: 23.39 mm/sec. LP: 11.70 mm/sec.
Maximum recording/playback time	SP: 4 hours (with E-240) LP: 8 hours (with E-240)
Fast-froward/rewind time	Approx. 4 min. 20 sec. (with E-195)
High speed rewind time	Approx. 2 min. 50 sec. (with E-195)

Tuner Section

Tuner system (audio)	Intercarrier system
Channel coverage	SLV-715/715VP VHF channels E2 – E12 (channels A to H for Italy) CATV channels S01 – S05 CATV channels S1 – S20 HYPER S21 – S41 UHF channels E21 – E69 SLV-715UB UHF channels B21 – B68
RF output signal	SLV-715/715VP UHF channels E30 – E39 (adjustable) SLV-715UB UHF channels B30 – B39 (adjustable)
Aerial input	75-ohms asymmetrical aerial socket

Inputs and Outputs

Video inputs	LINE IN 2: phono jack (1) EURO-AV (LINE 1) and (LINE 3): 21-pin (pin 20) 1 Vp-p, 75 ohms, unbalanced, sync negative
Audio inputs	LINE IN 2: phono jacks (2) 47 kilohms, –7.5 dBs (0 dBs = 0.775 V rms) EURO-AV (LINE 1) and (LINE 3): 21-pin (pins 2 and 6) More than 10 kilohms, –4 dBs
Video outputs	LINE OUT: phono jack (1) EURO-AV (LINE 1): 21-pin (pin 19) 1 Vp-p, 75 ohms, unbalanced, sync negative
Audio outputs	LINE OUT: phono jacks (2) –7.5 dBs at load impedance: 47 kilohms Output impedance: less than 10 kilohms EURO-AV (LINE 1): 21-pin (pins 1 and 3) Output impedance: less than 1 kilohm –4 dBs with 10 kilohm load

– Continued on next page –

VHS VIDEO CASSETTE RECORDER

SONY®

MICROFILM

CONTROL S IN	Minijack (1)
CONTROL S OUT	Minijack (1)
CONTROL L	5-pin DIN (1)
Microphone input	Minijack (1) Input impedance: −60dBs for low impedance microphone
Headphone input	Stereo minijack (1) Impedance more than 8 ohms Output 45mW (8 ohms)

Timer Section

Clock	Quartz locked
Time indication	24-hour cycle
Timer setting	Only for recording 8 programmes in one month at max.
Timer back-up	Built-in self-charging capacitor Back-up duration: Up to 3 hours at one time

General

Power requirements	240 V AC, 50 Hz (SLV-715UB) 220 V AC, 50 Hz (SLV-715/715VP)
Power consumption	38 W
Operating temperature	5°C to 40°C (41°F to 104°F)
Storage temperature	−20°C to 60°C (−4°F to 140°F)
Dimensions	430 × 96.5 × 395 mm (w/h/d) (17 × $3\frac{7}{8}$ × $15\frac{5}{8}$ inches)
Weight	SLV-715/715VP: 7.2 kg (15 lb 14 oz) SLV-715UB: 7.4 kg (16 lb 5 oz)

Wireless Commander RMT-V5D

Remote control system	Infrared control
Command mode	VTR 1/2/3
Power requirements	3 V DC, two IEC designation R6 batteries
Dimensions	75 × 45 × 235.5 mm (w/h/d) (3 × $1\frac{13}{16}$ × $9\frac{3}{8}$ inches)
Weight	Approx. 240g ($8\frac{1}{2}$ oz) excluding batteries

Accessories Supplied

Wireless Remote Commander RMT-V5D with two R6 batteries
75-ohm coaxial cable (1)
Video/audio connecting cable (1)
Screwdriver for RF channel adjustment (1)

Design and specifications are subject to change without notice.

Note
This appliance conforms with EEC Directive 87/308/EEC regarding interference suppression.

SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety checks before releasing the set to the customer:

1. Check the area of your repair for unsoldered or poorly-soldered connections. Check the entire board surface for solder splasher and bridges.
2. Check the interboard wiring to ensure that no wires are "pinched" or contact high-wattage resistors.
3. Look for unauthorized replacement parts, particularly transistors, that were installed during a previous repair. Point them out to the customer and recommend their replacement.
4. Look for parts which, though functioning, show obvious signs of deterioration. Point them out to the customer and recommend their replacement.
5. Check the B+ voltage to see it is at the values specified.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

SERVICE NOTE

1. RETURNING PINCH ROLLER, GUIDE ROLLER AND ELEVATOR CAM TO STOP CONDITION

1) Remove the bottom panel.
2) Turn the worm gear Ⓐ of the cam motor, located at lower of the MD (between the front panel and the MD-49 board), to the arrow direction Ⓑ by finger.

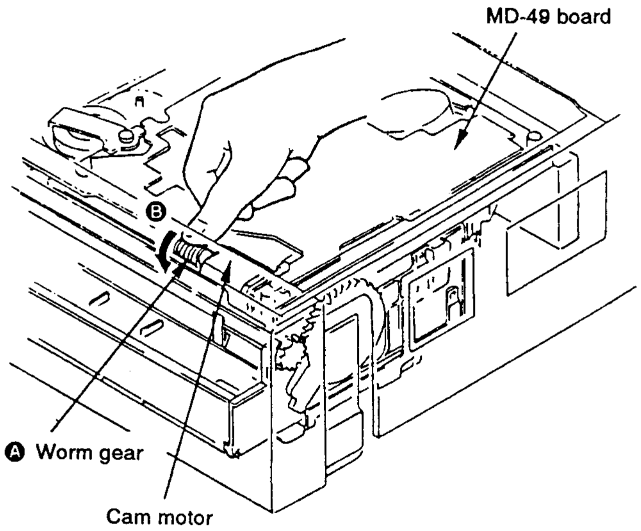

MD-49 board
Ⓑ
Ⓐ Worm gear
Cam motor

Fig. 1.

2. WINDING TAPE TO CASSETTE HALF

Turn the fly wheel Ⓐ of the capstan motor to the arrow direction Ⓑ by finger, then the cassette tape will be wound to the cassette half.

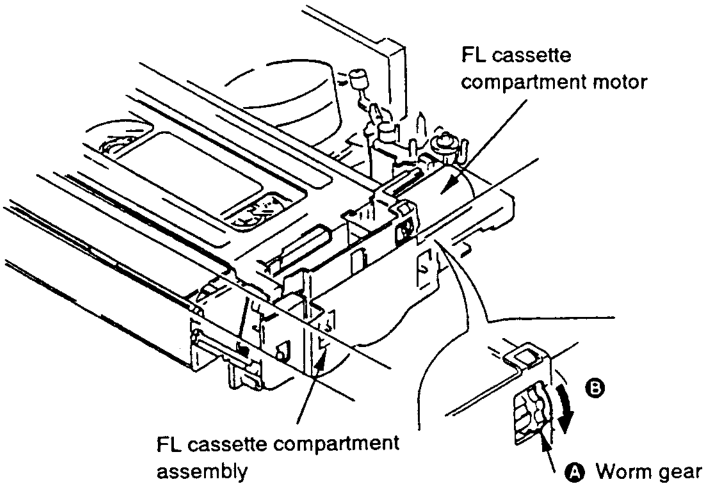

FL cassette compartment motor
Ⓑ
FL cassette compartment assembly
Ⓐ Worm gear

Fig. 2.

3. TAKING OUT CASSETTE WHEN UNIT IS DEFECTIVE WITH CASSETTE IN

1) Remove the upper case.
2) Turn the worm gear Ⓐ of the FL cassette compartment motor to the arrow direction Ⓑ by finger.

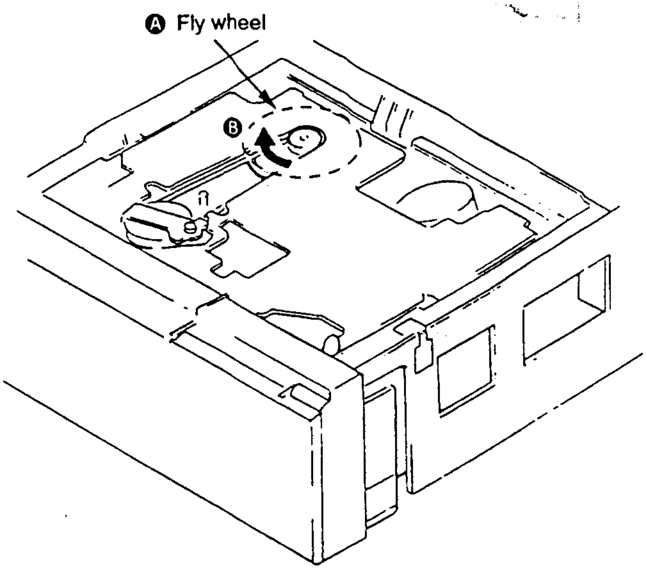


Fig. 3.

Note: When performing 1. to 3., be careful not to clog and damage the cassette tape.

4. UPPER DRUM REPLACEMENT

4-1. Removal of Upper Drum

1) Remove the screw ❶ (P3×5) and take out the grounding shaft ❷. (See Fig. 4.)
2) Completely remove the rotary upper drum board and desolder the soldering indicated by the arrows (16 points).
3) Remove two screws ❸ (PSW3×8) and take out the rotary upper drum in the arrow direction Ⓐ. (See Fig. 5.)
   If it is difficult, remove by shaking the rotary upper drum gradually.

Note: If the drum can not be removed, check whether the solders have been removed or not again.

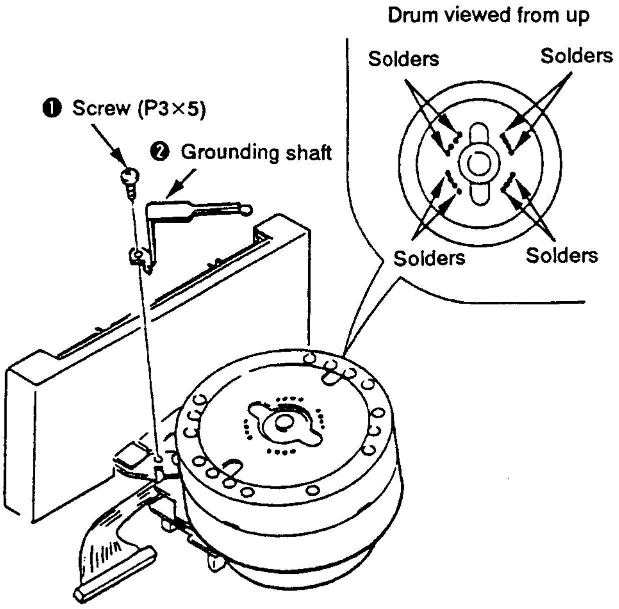


Fig. 4.

4-2. Mounting Upper Drum

1) When inserting the rotary drum into the lower drum, be careful not to blur the contacting surface with fingerprint or the like.
2) Mount the rotary upper drum board by aligning SP1 with S1 of rotary transformer board (lower drum) so that the screw holes of both upper and lower drums match. (See Fig. 5.)
3) If it is difficult, mount the upper drum by shaking it gradually.
   Note: Be careful not to damage the head. Make sure that the upper drum is tightly inserted.
4) Tighten two screws ❸ (PSW3×8). (See Fig. 5.)
   Note: Temporary tighten two screws. After making sure that upper drum is tightly inserted, tighten the screws.
5) Solder 16 points on the board of the rotary upper drum.
6) Fix the grounding shaft ❷ using the screw ❶ (P3×5) so that the protrusion of grounding shaft end contacts the center of the drum shaft.
   Note: When attaching the grounding shaft ❷, be careful not to apply force to the spring section of it.

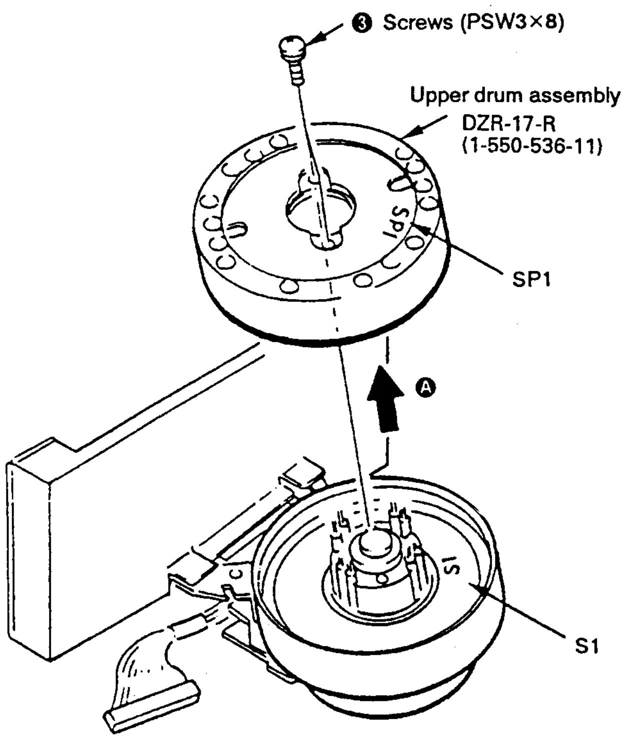


Fig. 5.

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SECTION 1
GENERAL

This section is extracted from instruction manual.

WARNING

To prevent fire or shock hazard, do not expose the unit to rain or moisture.

To avoid electrical shock, do not open the cabinet. Refer servicing to qualified personnel only.

NOTICE FOR THE CUSTOMERS IN THE UNITED KINGDOM

IMPORTANT

The wires in the mains lead are coloured in accordance with the following code:
Blue: Neutral
Brown: Live
As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plug proceed as follows:
The wire which is coloured blue must be connected to the terminal which is marked with the letter N or coloured black.
The wire which is coloured brown must be connected to the terminal which is marked with the letter L or coloured red.
Do not connect either wire to the earth terminal in the plug which is marked by the letter E or by the safety earth symbol ⏚ or coloured green or green-and-yellow.

About This Manual

This manual includes information on three video cassette recorders, the SLV-715, SLV-715UB and SLV-715VP. First, refer to the model name indicated on the front and rear panels and check what your model is. Any differences in appearance or operation of the three VTRs are clearly indicated in the text, for example, **"For SLV-715 only."** However, note that the illustrations used in this manual are those of the SLV-715VP.

■ On colour systems of SLV-715/715UB

This unit is designed to record and play back using the PAL colour system. Recording and playback of video sources based on other colour systems cannot be guaranteed.

■ On colour systems of SLV-715VP

This unit is designed to record and play back the PAL and SECAM B/G colour systems. Recording and playback of video sources based on other systems cannot be guaranteed.

■ On the Quick Reference Guide

The **"Quick Reference Guide"** is attached on the back cover. Use the Guide in addition to this manual.

Caution
Television programmes, films, video tapes and other materials may be copyrighted.
Unauthorized recording of such materials may be contrary to the provisions of the copyright laws. Also, use of this recorder with cable television transmission may require authorization from the cable television transmitter and/or programme owner.

Precautions

On Safety

- For SLV-715UB, operate on 240 V AC, 50 Hz. For SLV-715 and SLV-715VP operate on 220 V AC, 50 Hz.
- Should anything fall into the cabinet, unplug the unit and have it checked by qualified personnel before operating it any further.
- If the unit will not be used for an extended period, unplug it from the wall outlet. To disconnect the cord, pull it out by the plug. Never pull the cord itself.
- The unit is not disconnected from the mains (AC power source) as long as it is connected to the mains outlet, even if the unit itself has been turned off.

On Installation

- Allow adequate air circulation to prevent internal heat build-up.
- Do not place the unit on surfaces (rugs, blankets, etc.) or near materials (curtains, draperies, etc.) that may block the ventilation holes.
- Do not install the unit near heat sources such as radiators or air ducts or in a place subject to direct sunlight, excessive dust, mechanical vibration or shock.
- The unit is designed for operation in a horizontal position. Do not install it in an inclined position.
- Keep the unit and cassette tapes away from equipment with strong magnets, such as microwave ovens or large loudspeakers.
- Do not place any heavy object on the unit.

On Operation

- When the unit is not in use, turn the power off to conserve energy and to extend its life.
- Remove and store video cassettes after recording or playback.

On Cleaning

- Clean the cabinet, panel and controls with a dry soft cloth, or a soft cloth slightly moistened with a mild detergent solution.
- Do not use any type of solvents, such as alcohol or benzine, which might damage the finish.

If you have any questions about the unit, contact your Sony service facility.

Main Features

For Editing

- Flying erase head allows smooth transition between two recordings.
- Synchronized editing either from or onto this VTR is possible.
- Two kinds of remote control terminals, CONTROL L and CONTROL S IN jacks, allow this VTR to be remotely controlled by other equipment involved in tape editing.
- Video/audio input jacks on the front panel offer easy connection to other VTRs.

On-screen Displays

- Information on the tape counter, tape speed, remaining tape length and present date and time, can be displayed on the TV screen.
- Auto menu can be displayed to set the VTR to the desired automatic tape operation.
- Auto repeat function allows playing back the desired portion of the tape repeatedly.
- Information on the pre-selected timer recording programmes can be called up on the screen with a press of the button.

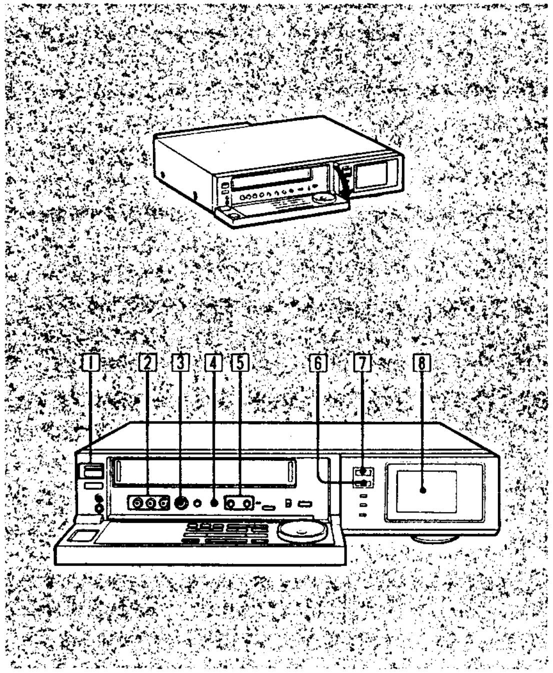
Convenient Functions

- Auto tracking function automatically adjusts the tracking condition for maximum picture and sound quality.
- JOG/SHUTTLE on the VTR or the Remote Commander and SHUTTLE EDIT on the Commander allow quick access to the desired scene.
- The wireless Commander with liquid crystal display (LCD) provides access to almost all of the VTR controls and makes timer setting easy.
- Timer recording can be set for up to eight programmes within one month in advance.
- The beginning of the desired scene can be located easily with the index scan/index search function.
- The NICAM broadcast (stereo/bilingual programmes in the United Kingdom and Nordic countries) can be received. (SLV-715UB only)

High-quality Picture

- Sharp, finely detailed pictures are possible through the use of High Quality (HQ) picture technology.
- HQ
  Video Cassette Recorders (VTR) with this marking incorporate VHS high-quality picture technology and are compatible with any video cassette recorders bearing the VHS mark.

Identifying the Operational Parts



Front

[1] **ON/STANDBY switch and indicator**

[2] **LINE IN 2 VIDEO/AUDIO jacks**

[3] **CONTROL L connector (5-pin DIN type)** (page 69)
Connect to the CONTROL L connector of other Sony product for systematic operations such as synchronized editing.

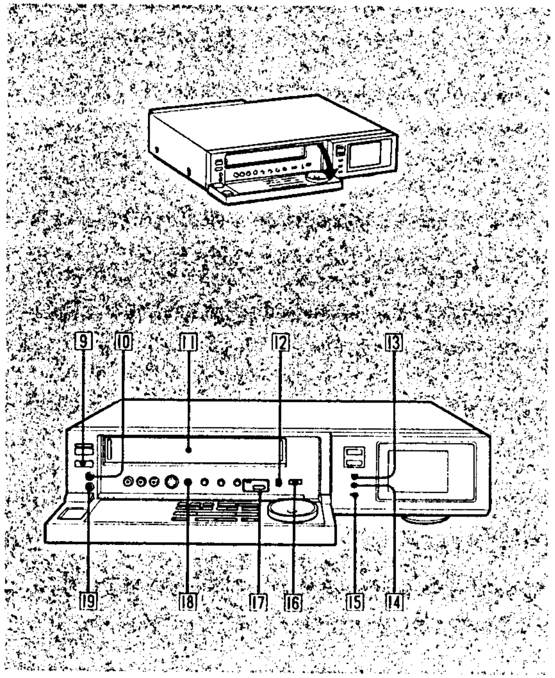
[4] **SHARPNESS (SOFT/SHARP) control**
Use to adjust the sharpness of the picture.

[5] **REC LEVEL controls** (page 64)
Adjust the audio recording level. Normally set these controls at the center indented position.

[6] **Remote sensor**
Point the Commander here.

[7] **AUTO TRACKING indicator** (page 26)

[8] **Display window**



Front

[9] **⏏ EJECT button**
Press to eject the cassette. This button does not function during recording.

[10] **MIC jack (mini type)**
Connect a microphone.

[11] **Cassette compartment** (page 24)

[12] **COMMAND MODE selector** (page 16)
Set to the same position as the COMMAND MODE button on the Commander.

[13] **AUDIO INSERT indicator**

[14] **VIDEO INSERT indicator**

[15] **HIGH SPEED REWIND indicator**

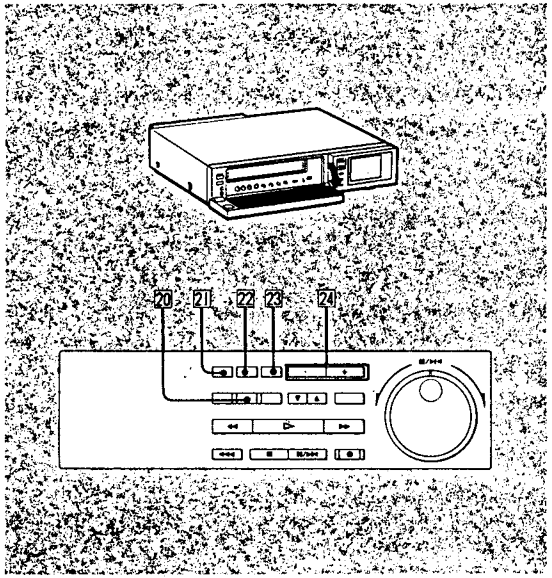
[16] **VPS (Video Programme System) ON/OFF switch (SLV-715VP only)** (page 56)

[17] **SYNCHRO EDIT button and indicator** (pages 73, 74)
Press to perform synchronized editing.

[18] **PHONE LEVEL (headphone level) control**

[19] **PHONES (headphones) jack (stereo mini type)**

Identifying the Operational Parts



Front

[20] **TIMER REC ON/OFF button**
Press to deactivate or reactivate the timer recording standby mode when using the VTR before timer recording.

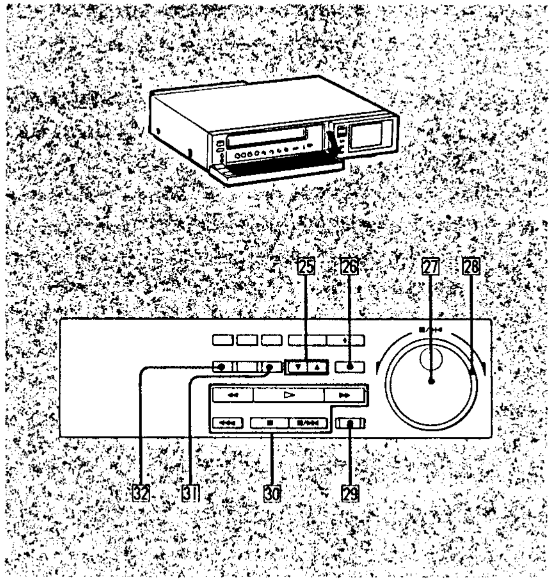
[21] **TV/VTR button** (page 41)
Press and light the VTR indicator in the display window to view the playback of the VTR or a programme selected on the VTR. Press this button again to turn off the VTR indicator to view a programme selected on the TV. This button is effective only when the VTR is connected to the TV via the EURO-AV (LINE 1) connector.

[22] **INPUT SELECT button** (pages 20, 38)
Press to select the signals to be recorded by the VTR. The selected mode will be indicated in the display window as follows:

TUNER: To record TV programmes.
SIMUL: To record TV programmes and audio signals from equipment connected to the EURO-AV (LINE 1) connector or the LINE IN 2 jacks simultaneously.
LINE L1: To record the signals from equipment connected to the EURO-AV (LINE 1) connector.
LINE L2: To record the signals from equipment connected to the LINE IN 2 jacks.
LINE L3: To record the signals from equipment connected to the EURO-AV (LINE 3) connector.

[23] **REC MODE (SP/LP) button** (page 38)
Press to select the recording tape speed, SP or LP.

[24] **PROGRAM +/– buttons**
Press to select the programme positions.



Front

[25] **TRACKING NORMAL/SLOW and STILL ADJUST buttons** (pages 26, 28)
Press either of the buttons to clear streaks that may appear on the screen when playing back tapes in normal or slow speed or to reduce picture shaking in still mode.

[26] **TRACKING AUTO/MANUAL button** (page 26)
Press to reactivate the automatic tracking function after manual tracking adjustment.

[27] **JOG dial** (pages 28, 38, 39)

[28] **SHUTTLE ring (FORWARD/REVERSE)** (pages 28, 39)

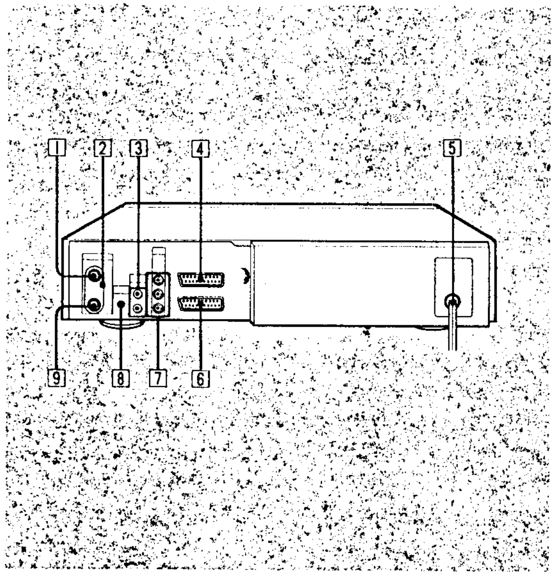
[29] **● REC (record) button** (page 38)

[30] **Tape transport buttons** (pages 25, 27)
◀◀ REW (rewind) button
▷ PLAY button
▶▶ FF (fast-forward) button
■ STOP button
❚❚/▶◀ PAUSE/STILL button
◀◀◀ HIGH SPEED REWIND button

[31] **QUICK TIMER button** (page 58)
Press to activate the quick timer recording function.

[32] **EDIT ON/OFF button** (page 66)
Nomally keep this button at OFF (i.e. the EDIT indicator is off in the display window). When using this VTR for editing, press this button to light the EDIT indicator.

Identifying the Operational Parts



Rear

1 **AERIAL IN socket** (page 14)

2 **DX/LOCAL switch**
Normally set to DX. If the TV signal is very strong, set it to LOCAL.

3 **CONTROL S IN/OUT jacks (minijack)** (pages 71, 72)
Connect to the CONTROL S output/input jack of other Sony product for systematic operations such as synchronized editing or remote control operation.

4 **⊖→ EURO-AV (LINE 1) connector (21-pin)** (page 14)
The on-screen display is available via this connector.

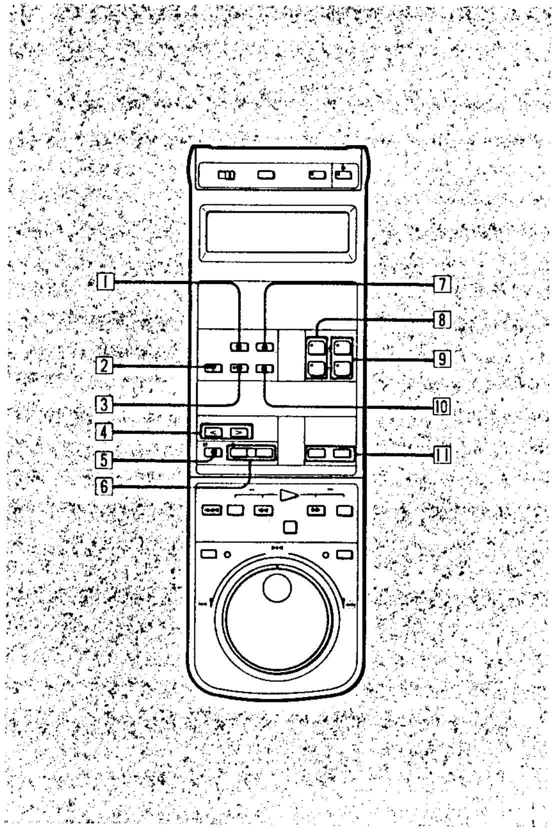
5 **AC power cord**

6 **→⊖ EURO-AV (LINE 3) connector (21-pin)** (page 71)

7 **LINE OUT VIDEO/AUDIO jacks (phono type)** (pages 14, 68)
The on-screen display is not available via these jacks.

8 **RF CHANNEL screw (30 to 39)** (page 19)

9 **AERIAL OUT socket** (page 14)



Remote Commander RMT-V5D

- The buttons on the Commander with the same name or mark as those on the VTR have the same function.
- The buttons with a red dot inscribed on top can be used to remotely control Sony TVs with the ▣ mark when the TV / VTR remote control selector is set to TV.
- Keep the upper cover closed except where noted.

1 **TIMER ON SCREEN button** (page 50)
Press to display the timer settings on the TV screen.

2 **DATA SCREEN button** (page 31)

3 **AUDIO MONITOR button** (pages 29, 42, 43)

4 **SHUTTLE EDIT buttons** (page 39)

5 **II PAUSE button**

6 **● REC (recording) buttons** (page 38)
Press two buttons simultaneously.

7 **INDEX button** (pages 61, 62, 63)

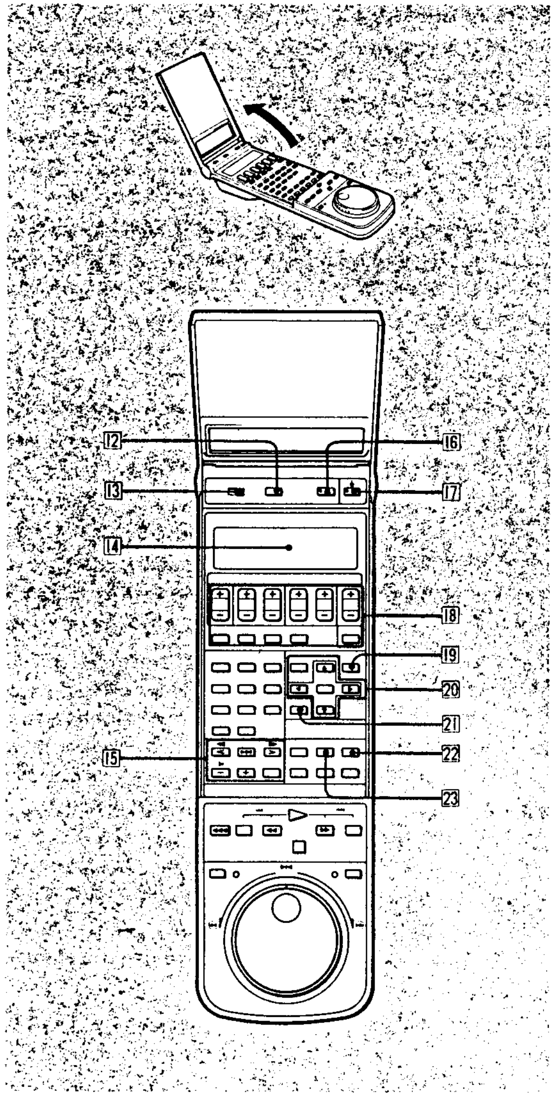
8 **VOL (TV volume) +/– buttons**
Press to control the volume of the TV. Effective only for Sony TVs with the ▣ mark.

9 **PROG (programme) +/– buttons**

10 **COUNTER RESET button** (page 45)

11 **AUDIO/VIDEO INSERT buttons** (page 77)

Identifying the Operational Parts



Remote Commander RMT-V5D

12 **TIMER REC (ON/OFF) button**
(page 49)

13 **TV / VTR remote control selector**
(page 16)
Set to VTR to control this VTR and set to TV to control the TV.

14 **Liquid-crystal display**

15 **Various speed playback buttons**
(page 27)
< ◀II / II▶ > (to select the direction for frame-by-frame picture or the direction for any playback mode)
▶I◀ (to obtain a still picture)
I▶ SLOW +/– (slow speed up/down)
× 2 (double speed playback)

16 **TV/VTR button** (page 41)

17 **⏻ (on/standby) button**

18 **Timer recording/clock set buttons**
(pages 17, 47)

19 **COMMAND MODE button** (page 16)

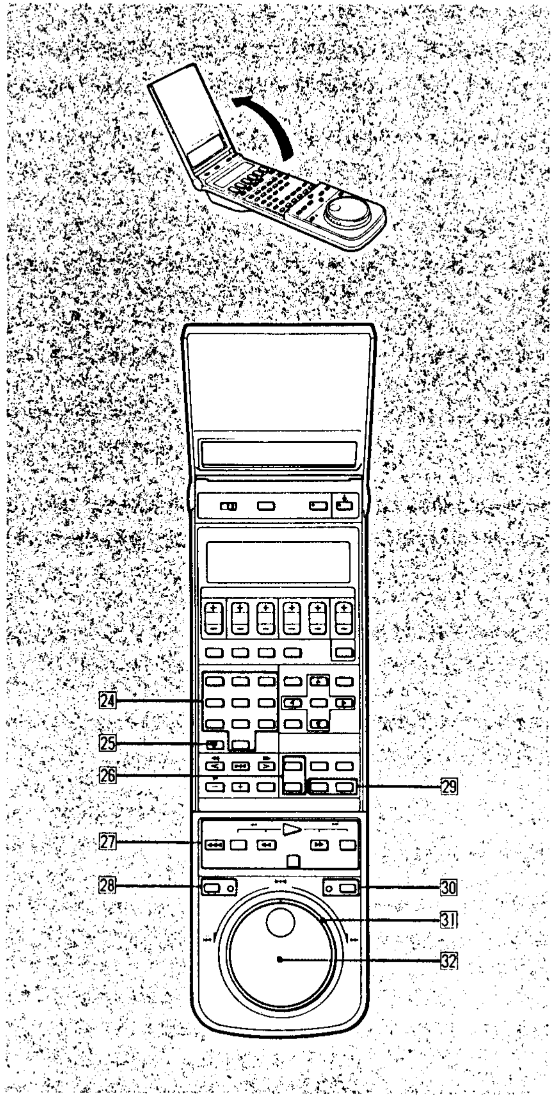
20 **Menu operation buttons**
Press MENU to display or erase the main MENU. Press EXE to store the selected parameters.
Press ▲/▼/◀/▶ to move the cursor.

21 **FUNCTION MEMORY button** (page 35)

22 **INPUT SELECT button** (pages 38, 67, 73, 75)

23 **REC MODE select button** (page 38)

> **Note on the TV / VTR remote control selector**
> When you set the TV / VTR remote control selector on the Remote Commander to TV, the TV/VTR button cannot operate some Sony TV's.



Remote Commander RMT-V5D

24 **Programme position number buttons**
(page 38)
Press to select the programme position directly.

25 **–/– – (10's digit) button**
(page 38)
Press to select a programme number over 9. To select 23, press –/– –, then 2 and 3.

26 **TIMER CHECK/TIMER CLEAR buttons** (page 51)
Press to check, correct, or clear the timer settings.

27 **Tape transport buttons** (pages 25, 27)
⏪/⏩ SEARCH (reverse/forward)
◀◀ REW (rewind)
▶ PLAY
▶▶ FF (fast-forward)
■ STOP
◀◀◀ HIGH SPEED REW

28 **JOG/SHUTTLE function button and indicator** (page 28)
Press to light the indicator to use JOG/SHUTTLE for various playback modes.

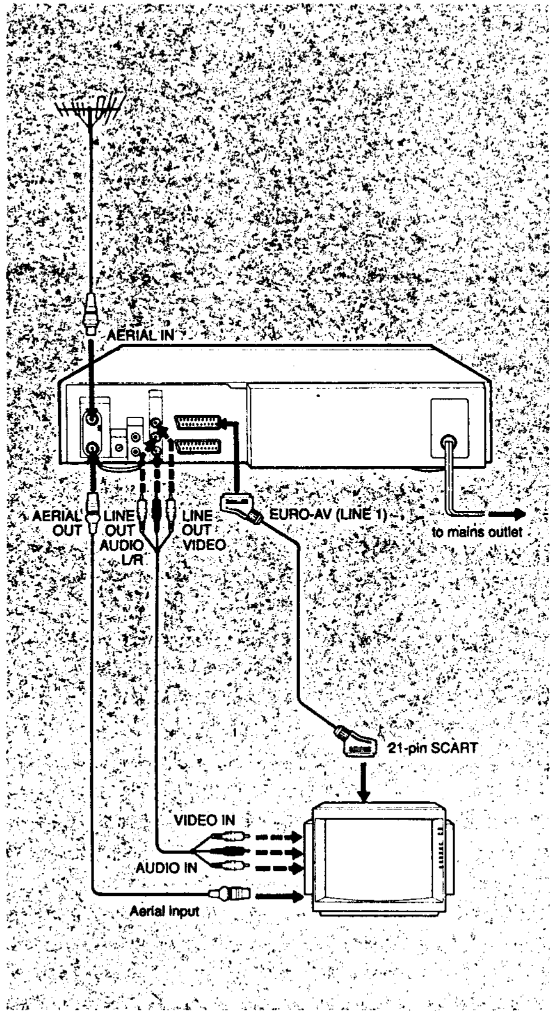
29 **INDEX MARK and ERASE buttons**
(pages 60, 63)

30 **PROG (programme) function button and indicator** (pages 21, 38)
Press to light the indicator to use JOG for selection of the programme position.

31 **SHUTTLE ring** (page 28)

32 **JOG dial** (pages 21, 28, 38)

Connections



Before You Begin

- Turn off the power to the VTR and TV.
- Do not connect the mains lead until all of the connections are complete.
- Connect firmly since a loose connection may cause picture distortion.

Using the AERIAL IN/OUT Sockets

1 **Connect the aerial to the AERIAL IN of this VTR.**

2 **Connect the AERIAL OUT of this VTR to the aerial input terminal of the TV using the supplied aerial cable.**

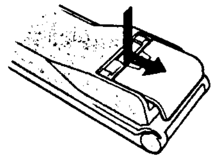
Additional Connections for Higher Picture Quality

■ **Using the EURO-AV connector**
If your TV is equipped with a 21-pin SCART connector, connect it to the VTR's EURO-AV (LINE 1) connector using the optional VMC-2121CE cable to view a higher quality picture.

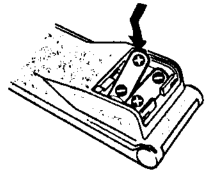
■ **Using the LINE OUT VIDEO/ AUDIO jacks**
If your TV is equipped with video/audio input jacks, connect it to the VTR's LINE OUT VIDEO/AUDIO jacks using the supplied video/audio connecting cable to view a higher quality picture. **Note that the on-screen display will not be available if connection is made via these jacks.**

Remote Control Operation

1



2



Preparing the Commander

■ **Battery Insertion**

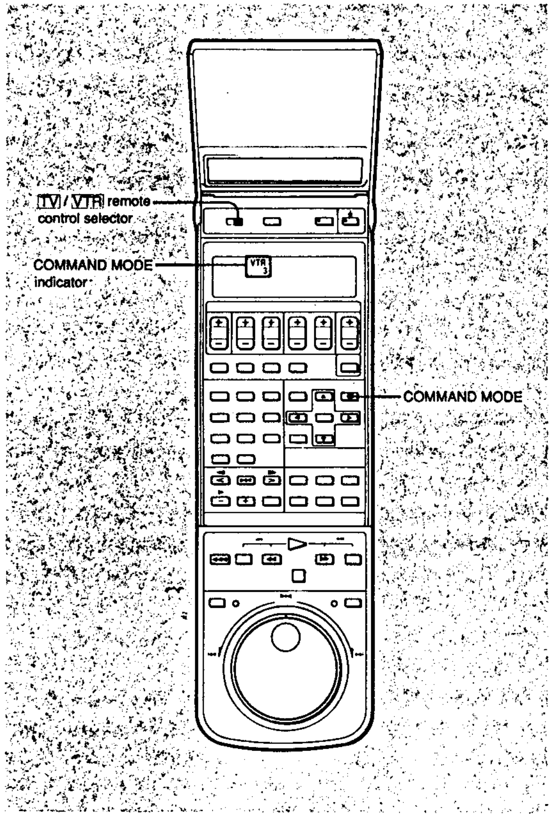
1 **Slide and remove the cover.**

2 **Insert two R6 (size AA) batteries with polarity positioned correctly.**

3 **Close the cover.**
The clock on the Commander will read – D –:– –. Set the date and clock referring to the "Date and Clock Setting" (page 17).

Note on batteries
With normal operation, batteries will last for about three months. However, if the Commander will not be used for a long period, remove the batteries to avoid possible damage from battery leakage.

Remote Control Operation


TV / VTR remote control selector
COMMAND MODE indicator
VTR 3
COMMAND MODE

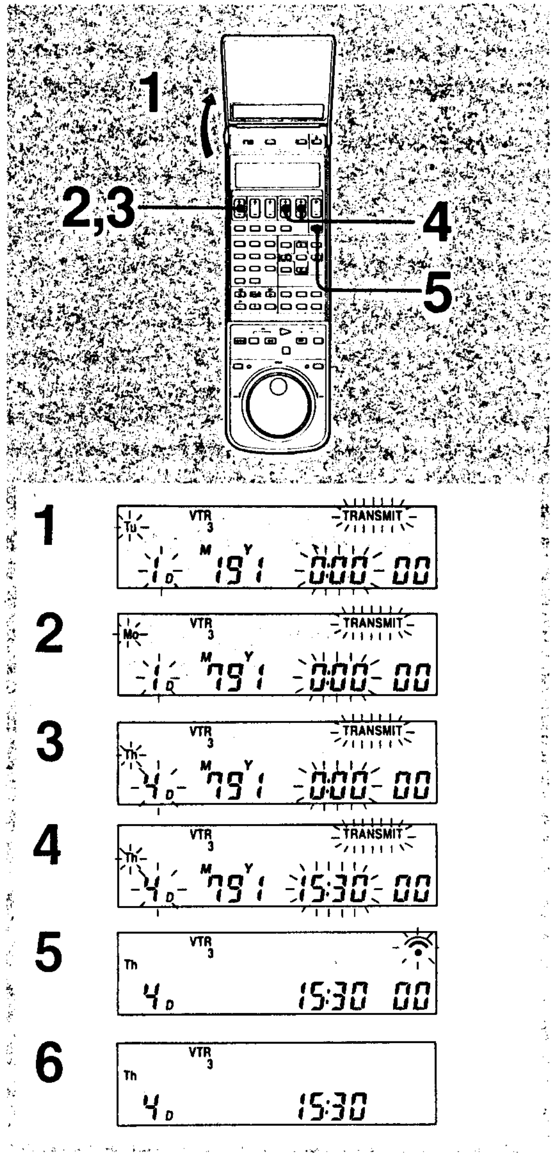
Command Mode Setting

Set the COMMAND MODE 1/2/3 selector on the VTR to the same number displayed in the LCD. To change the setting on the Commander, press COMMAND MODE repeatedly. Then, set the TV / VTR remote control selector to VTR.

Remotely Controlling Other Sony Equipment

- **Controlling another VTR equipped with a command mode selector**
  Set different command mode for this VTR (VTR 3, for instance) and the other VTR (VTR 1). Select VTR 1 on the Commander to control the other VTR and VTR 3 to control this VTR.
- **Controlling equipment without a command mode selector**
  Change the setting on the Commander as follows to control each type of VTR.
  VTR 1: Sony Betamax infrared remote control VTRs
  VTR 2: Sony 8 mm format VTRs
  VTR 3: This VTR

Date and Clock Setting


1
2,3
4
5
1
VTR 3
TRANSMIT
Tu
1 D M 91 Y 0:00 00
2
VTR 3
TRANSMIT
Mo
1 D M 7 91 Y 0:00 00
3
VTR 3
TRANSMIT
Th
4 D M 7 91 Y 0:00 00
4
VTR 3
TRANSMIT
Th
4 D M 7 91 Y 15:30 00
5
VTR 3
Th
4 D 15:30 00
6
VTR 3
Th
4 D 15:30

Before You Begin

The time and date between the years 1991 and 2006 can be set with the Commander.

Operation

Example: To set to 15:30, Thursday, July 4, 1991.

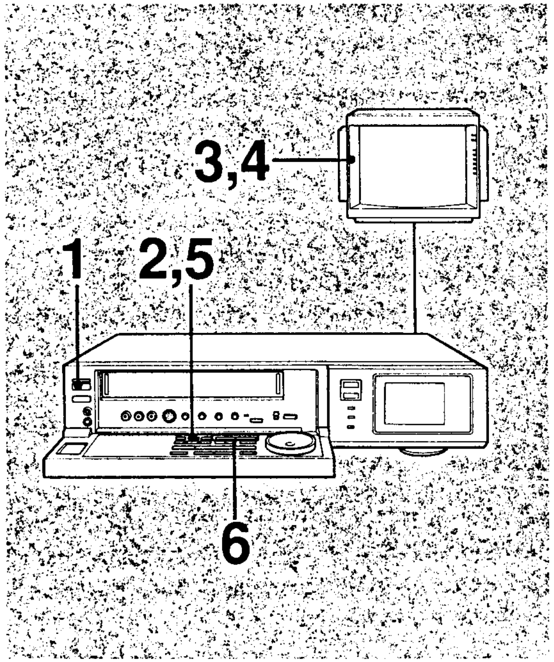
1. **Open the cover.**
2. **Keep pressing the D (date) button until 7 M 91 Y is displayed.**
   The date will be incremented slowly up to 30 days and then the month will be incremented.
3. **Press the + side or – side of the D (date) button until 4 D is displayed.**
   The day of the week appears automatically.
4. **Press the H (hour) and M (minute) buttons under TURN OFF to set the current time.**
5. **Point the Commander at the VTR and press TRANS (transmit).**
   A beep sound confirms that the date and clock setting is registered in the VTR as well.
6. **Check the display window on the VTR and close the cover.**

To correct the preset date and time
Open the cover, press CLOCK SET and repeat steps **2** to **6**.

When 0:00 is blinking on the VTR
Any time power is interrupted for more than three hours, you will see 0:00 blinking when power is restored. You will have to re-set the date and clock again.

When a short beep sounds repeatedly
The VTR is in the timer recording or quick timer recording mode or standby mode for timer recording and the setting cannot be transmitted.

Adjusting the TV



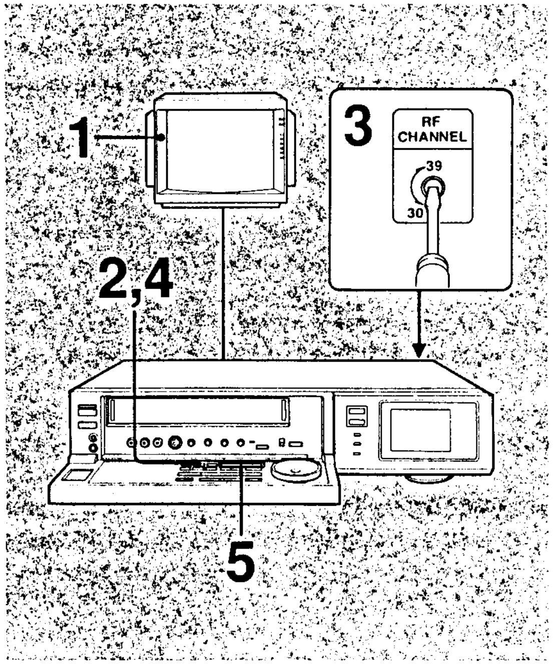
Before You Begin

If you have connected your VTR and TV using only the aerial sockets, one of the television programme positions must be adjusted to receive the VTR's playback signal. If TV-VTR connection is made by other means, skip this step.

Operation

1. **Make connections referring to "Connections" and press ON/STANDBY.**
2. **Press INPUT SELECT to light LINE L2 in the display window.**
   Do not connect any equipment to the LINE IN 2 VIDEO jack.
3. **Turn on the TV and select a programme position that is not used to receive a TV station.**
4. **Tune the TV so that a blue screen with tape counter and tape speed indication is clearly displayed on the TV screen.**
5. **Press INPUT SELECT to light TUNER in the display window.**
6. **Press PROGRAM +/– on the VTR and check that the screen changes to a different programme.**

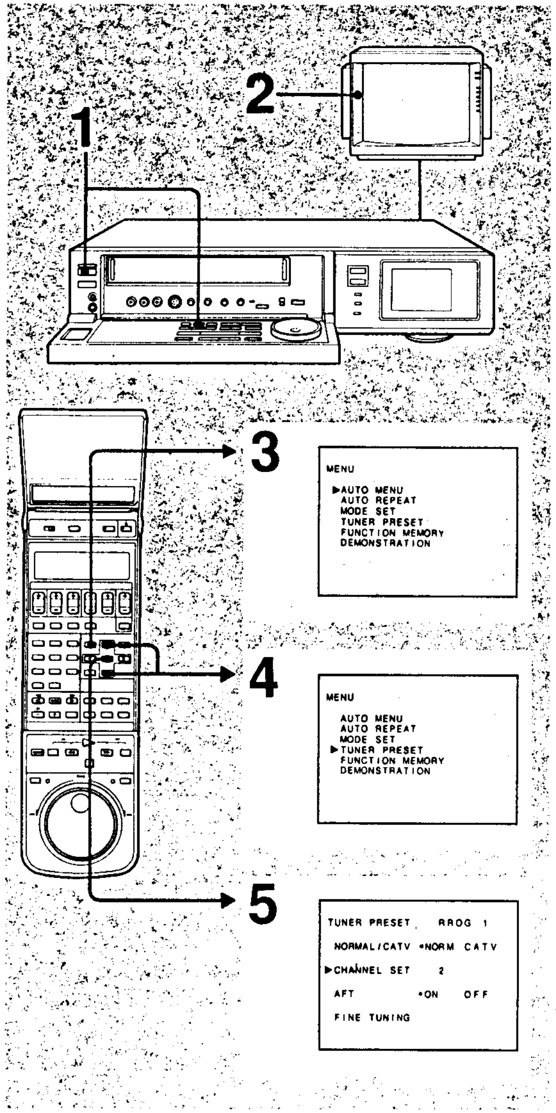
Now your TV is tuned to receive the VTR's playback picture. Whenever playing back a tape, select the programme position you chose in step 3.
If you are not sure how to tune your TV, refer to the TV's instruction manual or consult your dealer.



When the Playback Picture Is not Free of Disturbance

1. **Select a programme position on the TV between UHF channels 30 and 39, so that the TV shows no picture and a steady rustling sound or no sound is heard.**
2. **Press INPUT SELECT to light LINE L2 in the display window.**
   Do not connect any equipment to the LINE IN 2 VIDEO jack.
3. **Turn the RF CHANNEL screw with the supplied screwdriver so that a blue screen with tape counter and tape speed indication is clearly displayed on the TV screen.**
4. **Press INPUT SELECT to light TUNER in the display window.**
5. **Press PROGRAM +/– on the VTR and check that the screen changes to a different programme.**

Presetting the Active Channels


1
2
3
MENU
▶AUTO MENU
AUTO REPEAT
MODE SET
TUNER PRESET
FUNCTION MEMORY
DEMONSTRATION
4
MENU
AUTO MENU
AUTO REPEAT
MODE SET
▶TUNER PRESET
FUNCTION MEMORY
DEMONSTRATION
5
TUNER PRESET PROG 1
NORMAL/CATV •NORM CATV
▶CHANNEL SET 2
AFT •ON OFF
FINE TUNING

Before You Begin

- The SLV-715 and 715VP are capable of receiving VHF channels E2 — E12, UHF channels E21 — E69, and cable TV channels S1 — S41 and S01 — S05. The SLV-715UB is capable of receiving VHF channels B21 — B68.
- The receivable channels are governed by the TV broadcasting system in your area.
- Up to 60 channels can be allocated to any desired programme position.
- The TUNER PRESET menu will not be displayed unless VTR-TV connection is made via the aerial sockets or EURO-AV (LINE 1).

To Call Up the TUNER PRESET Menu

1 **Turn on the VTR and press INPUT SELECT to light the TUNER indicator and the programme position number in the display window.**

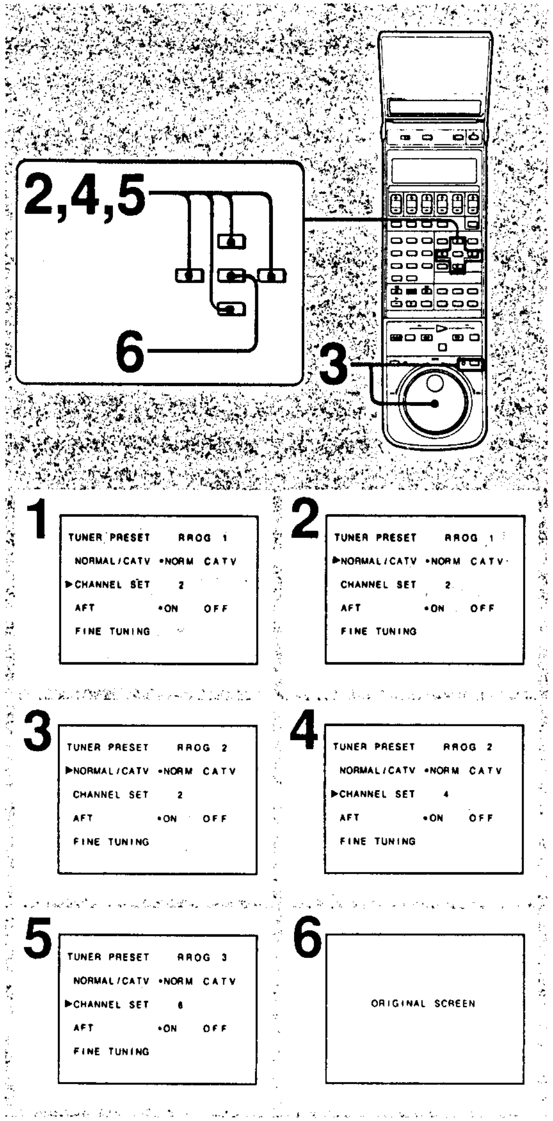
2 **Turn on the TV.**
Set to the programme position for the VTR if VTR-TV connection is made via the aerial sockets. Select VTR input if VTR-TV connection is made via EURO-AV (LINE 1).

3 **Press MENU with the VTR in the stop mode.**
The main MENU appears.

4 **Move cursor with ▲ or ▼ to TUNER PRESET.**

5 **Press EXE.**
The TUNER PRESET menu appears.

Note for the users of SLV-715UB
The TUNER PRESET menu of the SLV-715UB does not have the NORMAL/CATV selection as illustrated.


2,4,5
6
3
1
TUNER PRESET PROG 1
NORMAL/CATV •NORM CATV
▶CHANNEL SET 2
AFT •ON OFF
FINE TUNING
2
TUNER PRESET PROG 1
▶NORMAL/CATV •NORM CATV
CHANNEL SET 2
AFT •ON OFF
FINE TUNING
3
TUNER PRESET PROG 2
▶NORMAL/CATV •NORM CATV
CHANNEL SET 2
AFT •ON OFF
FINE TUNING
4
TUNER PRESET PROG 2
NORMAL/CATV •NORM CATV
▶CHANNEL SET 4
AFT •ON OFF
FINE TUNING
5
TUNER PRESET PROG 3
NORMAL/CATV •NORM CATV
▶CHANNEL SET 6
AFT •ON OFF
FINE TUNING
6
ORIGINAL SCREEN

Tuning a Desired Channel

1 **Call up the TUNER PRESET menu.**

2 **Move cursor with ▲ to NORMAL /CATV and select NORM with ◀. (For SLV-715UB, skip this step.)**
To tune in CATV channels first, select CATV with ▶.

3 **Select the desired programme position in any of the following ways:**
- **Press the PROG function button to light the indicator and turn JOG on the Commander.**
  Turn it clockwise for higher numbered programme positions; counterclockwise for lower numbered programme positions.
- **Press PROG +/– on the Commander or PROGRAM +/– on the VTR.**

4 **Move cursor to CHANNEL SET with ▲ or ▼ and press ◀ or ▶.**
The channel number automatically increases with ▶ and decreases with ◀. The number stops changing when the first channel received in your area is detected.

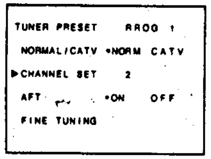
5 **To allocate a channel to the next programme position, repeat steps 2 to 4.**

6 **Press EXE to store the allocated channels and return to the original screen.**

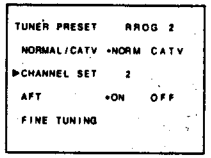
Channel scanning on your VTR
- When ▶ is pressed in steps 4 and 5, the channels are scanned in the following order. When ◀ is pressed, the scanning order is reversed.
  VHF (E2—E12) → UHF (E21—E69) → CATV (S1—S20) → HYPER BAND (S21—S41) → CATV (S01—S05)
- The SLV-715UB only scans UHF channels B21 to B68.
- In Italy, channels 13 to 20 correspond to channels A to H.

Presetting the Active Channels

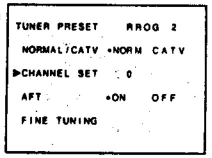
1


TUNER PRESET PROG 1
NORMAL/CATV •NORM CATV
▶CHANNEL SET 2
AFT •ON OFF
FINE TUNING

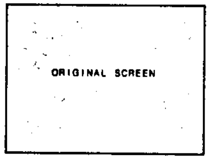
2


TUNER PRESET PROG 2
NORMAL/CATV •NORM CATV
▶CHANNEL SET 2
AFT •ON OFF
FINE TUNING

3


TUNER PRESET PROG 2
NORMAL/CATV •NORM CATV
▶CHANNEL SET 0
AFT •ON OFF
FINE TUNING

5


ORIGINAL SCREEN

Erasing Unwanted Programme Positions

The VTR can be preset so that only the desired programme positions will appear when you press PROG +/– on the Commander or PROGRAM +/– on the VTR.

1 **Call up the TUNER PRESET menu.**

2 **Press PROG +/– on the Commander or PROGRAM +/– on the VTR to call up the unused programme position. You can also call it up using JOG on the Commander. Press the PROG function button to light the indicator and turn JOG.**

3 **Press programme position number button 0 twice or keep pressing ◀ or ▶ until 0 is displayed.**

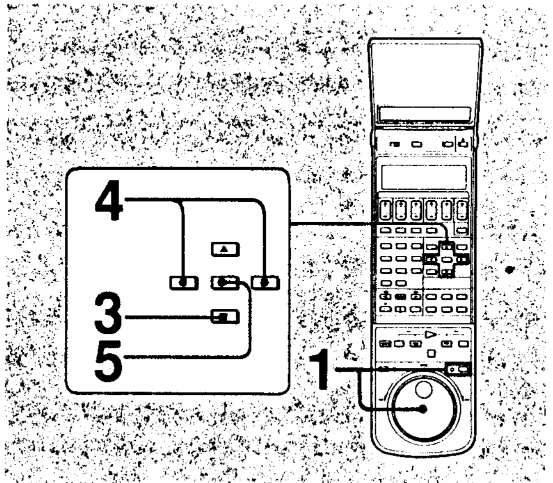
4 **Repeat steps 2 and 3 to erase other programme positions.**

5 **Press EXE.**

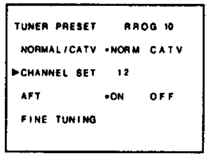
■ **To enter the erased programme positions again**
Follow the operations in "Tuning a Desired Channel."

To Allocate the Channels Directly

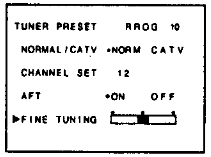
After step 3 in "Tuning a Desired Channel," move cursor to CHANNEL SET.
Enter the desired programme numbers using the programme position number buttons. To enter one's digits, press 0 and then the desired number. To enter two digit numbers, press the ten's digit number and the one's digit number.



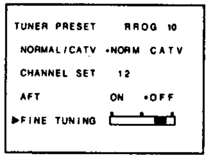
2


TUNER PRESET PROG 10
NORMAL/CATV •NORM CATV
▶CHANNEL SET 12
AFT •ON OFF
FINE TUNING

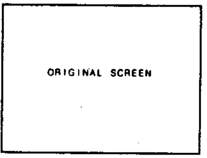
3


TUNER PRESET PROG 10
NORMAL/CATV •NORM CATV
CHANNEL SET 12
AFT •ON OFF
▶FINE TUNING

4


TUNER PRESET PROG 10
NORMAL/CATV •NORM CATV
CHANNEL SET 12
AFT ON •OFF
▶FINE TUNING

5


ORIGINAL SCREEN

Manually Fine-tuning a Weak Station

Normally the AFT (Automatic Fine Tuning) function fine-tunes the picture with the AFT in TUNER PRESET menu set to ON. However, when the programme received on the VTR is distorted due to signal interference, fine tuning may solve the problem.

1 **Select the distorted programme position by pressing PROG +/– on the Commander or PROGRAM +/– on the VTR, or using JOG on the Commander.**

2 **Call up the TUNER PRESET menu.**

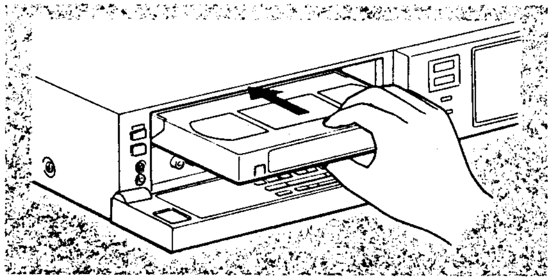
3 **Move cursor to FINE TUNING.**
The fine tuning meter appears.

4 **Press ◀ or ▶ to obtain the best picture.**
If you cannot obtain a better picture, move cursor to AFT and move dot to ON.

5 **Press EXE to store that position and return to the original screen.**

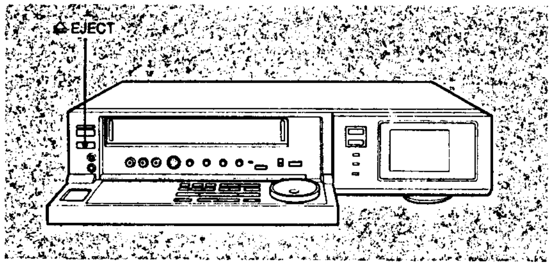
Note on the TUNER PRESET Menu
When the channel scanning function finds a station, it stops, and the blue background changes to the received TV picture. Usually, the TUNER PRESET menu will be superimposed over the TV picture clearly. However, if the synchronization of the received TV picture is disturbed (e.g. through interference from a subsidiary channel), the TUNER PRESET menu disappears or is not clear. In this case, press ◀ or ▶ to continue the scanning operation.

Handling Video Cassettes



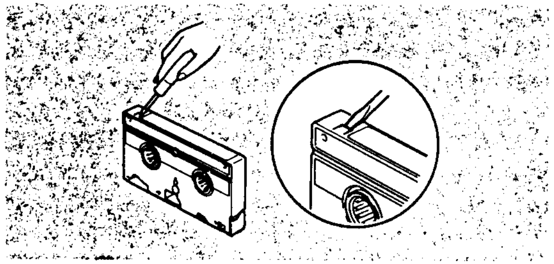
Cassette Insertion

Insert the cassette by slowly pressing its center with the arrow indication facing upwards. When a cassette is inserted, the power will be turned on automatically. If the inserted cassette has its safety tab removed, playback starts automatically.



Cassette Ejection

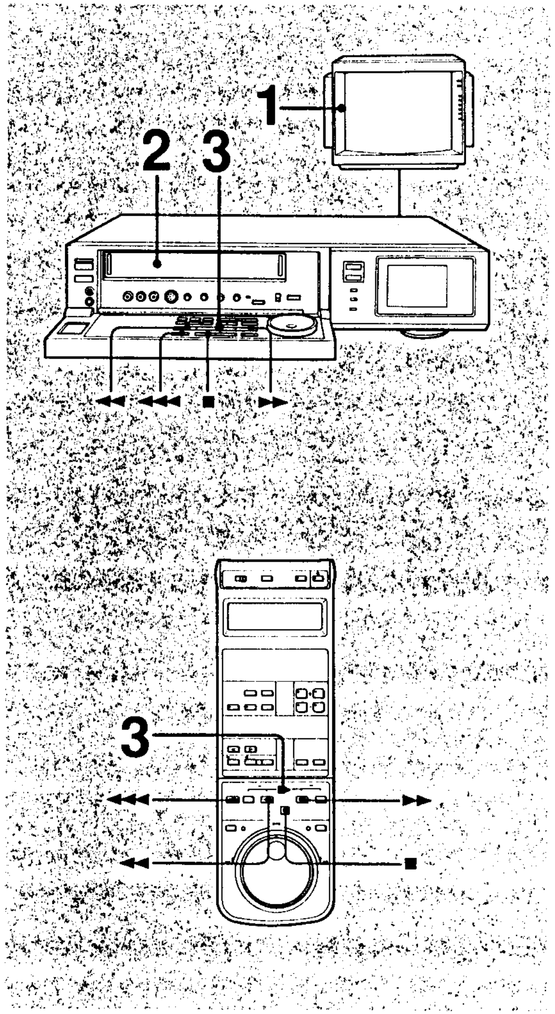
Press ⏏ EJECT on the VTR. When the VTR is turned off, pressing the ⏏ EJECT button will turn on the unit, eject the cassette, and turn off the VTR again. Note that ⏏ EJECT will not function during recording.



Erase Protection

When recording is made on a pre-recorded tape, the previous recording will be erased. To avoid this, remove the safety tab with a screwdriver or a similar tool.
The cassette will then be ejected when recording is attempted. To record again on a cassette that has no tab, simply cover the safety tab hole with a piece of plastic tape.

Playback



Playing a Tape

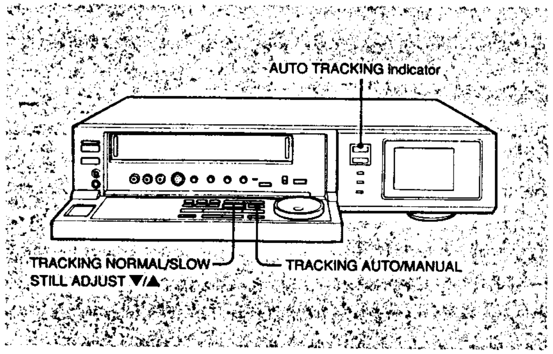
1 **Turn on the TV and select the programme position for the VTR.**
If VTR-TV connection is made via EURO-AV (LINE 1) or LINE OUT VIDEO/ AUDIO, select the input for the VTR.

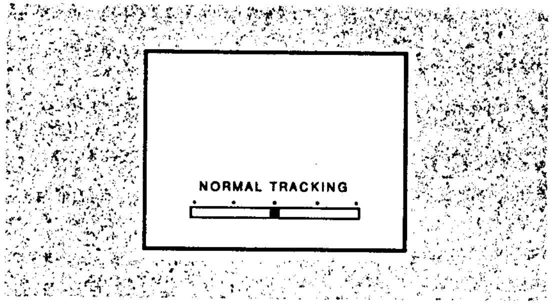
2 **Insert a cassette.**
The VTR will be turned on. If your cassette has its safety tab removed, playback starts automatically.

3 **Press ▶.**
Playback starts.
The VTR automatically rewinds the tape when it reaches the end.

To stop playback, press ■.
To rewind the tape, press ◀◀.
To rewind the tape at a higher speed, press ◀◀◀.
To advance the tape rapidly, press ▶▶.

Playback





Picture Adjustments

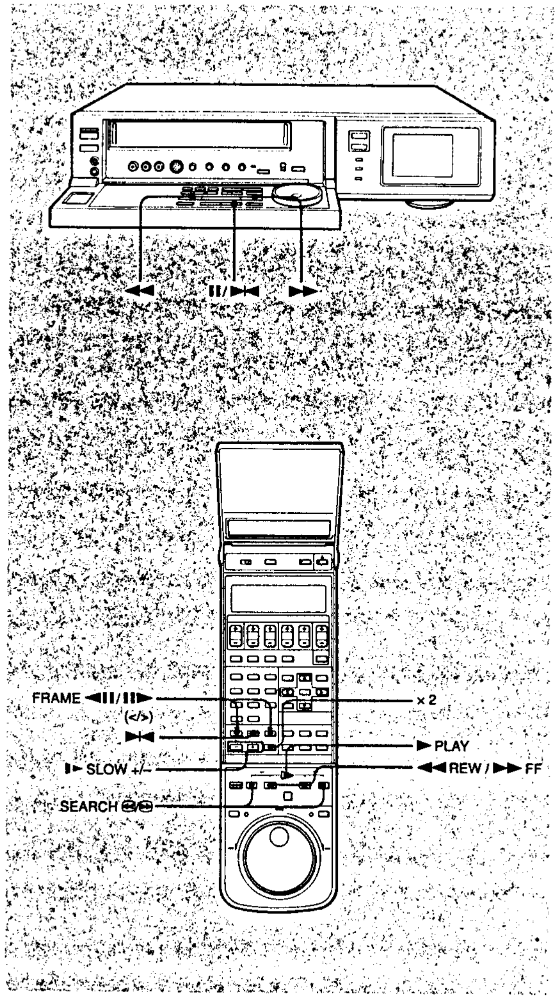
- **Auto tracking function**
  The tracking condition is automatically adjusted on this VTR. The AUTO TRACKING indicator blinks while the VTR is searching for the best tracking condition and lights when maximum playback picture is obtained. The automatic tracking control is activated in the following conditions:
  - when the cassette is inserted and played back.
  - when the recording tape speed on the playback tape is switched between SP and LP.
  - when the picture is distorted by scratches, etc. on the tape.
  - when the AUTO TRACKING indicator is turned on by pressing TRACKING AUTO/MANUAL after the picture is adjusted manually. (See below.)

- **Manual adjustment during normal playback**
  If streaks or snow appear, adjust the picture using TRACKING NORMAL /SLOW and STILL ADJUST ▼/▲.

  Press either ▼ or ▲ to obtain the best possible picture.

Notes on auto tracking

- When the manual adjustment proves unsatisfactory, press both of the TRACKING NORMAL SLOW and STILL ADJUST ▼/▲. The tracking condition will return to the center position.
- **When the sound on the hi-fi audio track is not clear,** adjust it with TRACKING NORMAL/SLOW and STILL ADJUST ▼/▲.
  While adjusting, the sound on the normal audio track may be heard.
- Tracking adjustment may not be possible when the recording condition of the tape is very poor.



Various Playback Modes Using the Buttons on the Commander and the VTR

- **Playback pause/still**
  Press II / ▶◀ on the VTR, II or ▶◀ during playback. Press ▶ to resume normal playback.

- **Frame-by-frame playback**
  Press ◀II or II▶ in playback still mode.
  II▶ will advance and ◀II will reverse the picture one frame. Press ▶ to resume normal playback.

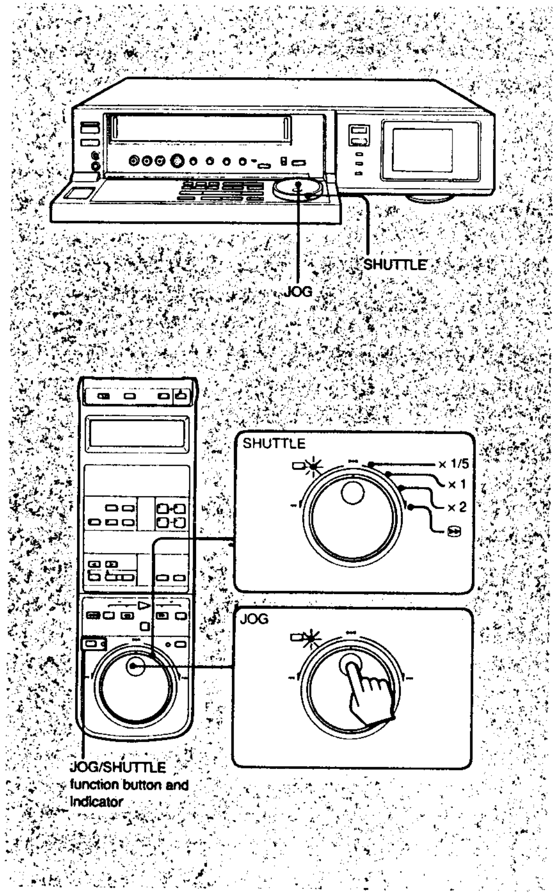
- **Variable speed playback**
  Press I▶ SLOW +/– for slow playback between 1/5 to 1/30 times normal speed.
  Press + or – to change the playback speed.
  Press × 2 for double speed playback.
  The speed setting can be made from any playback mode. Press ▶ to resume normal playback.

- **Reverse playback**
  During normal, slow or × 2 playback, press ◀II (<) to reverse the picture.
  Press II▶ (>) or ▶ to resume forward playback.

- **Picture search**
  Press ◀◀ or ▶▶ during playback.
  The picture will be scanned in reverse with ◀◀ and forward with ▶▶ as long as they are pressed. Release the button to return to the previous playback mode.

- **Locked picture search**
  Press ⏪ or ⏩ SEARCH during playback.
  The picture will keep on scanning in reverse with ⏪ and in forward with ⏩ even after the button is released. To resume normal playback, press ▶.

- **Viewing the picture during fast-forward or rewind**
  Press ▶▶ during fast-forward, or ◀◀ during rewind mode. The picture can be seen while the button is pressed.
  Release the button to return to the previous mode.



Various Playback Modes Using JOG/SHUTTLE

Various playback modes can be selected with JOG/SHUTTLE on the Commander or the VTR from any playback mode.
If you use the Remote Commander, press the JOG/SHUTTLE function button to light the indicator. (The VTR enters the still picture mode.)

■ Using the SHUTTLE ring

Turn the ring and hold it. Playback speed can be selected according to the turning angle as illustrated. The same speed is available in the reverse direction.

■ Using the JOG dial

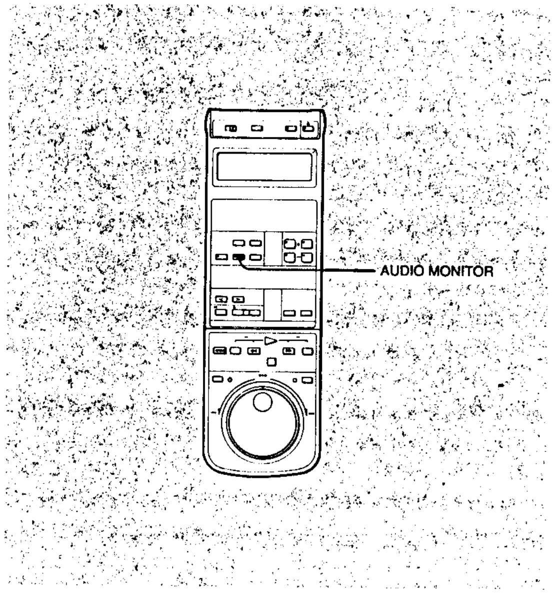
Playback speed varies according to the speed at which you turn the dial (frame-by-frame, slow, x 1). The same speed is available in the reverse direction.

Releasing JOG/SHUTTLE makes a still picture. To resume normal playback, press ▶.

To eliminate streaks or noise bands during slow motion play
Adjust the picture with TRACKING NORMAL/SLOW and STILL ADJUST ▼/▲ inside the front panel. The picture can be adjusted easily in faster speed playback.

To eliminate the bands on the top or bottom of the screen in still mode
Change to the slow motion play mode and adjust the picture with TRACKING NORMAL/SLOW and STILL ADJUST ▼/▲.

To eliminate picture shaking during still mode
Adjust the picture with TRACKING NORMAL/SLOW and STILL ADJUST ▼/▲.



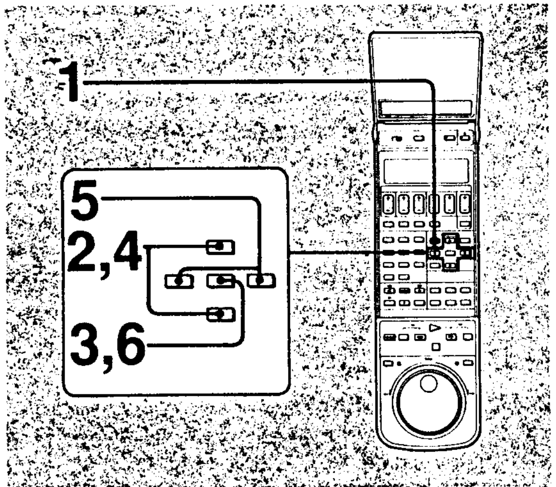
Listening to a Stereo or Bilingual Tape

Press AUDIO MONITOR to select the sound to be heard.
With each pression, stereo (left and right channel sounds), left-channel sound, right-channel sound or the sound on the normal audio track is selected cyclically in order. The selected sound is indicated in the display window of the VTR.

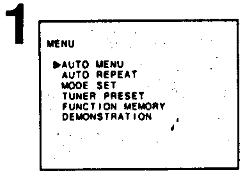
Display	Sound to be heard	
	Stereo tape	**Bilingual tape**
STEREO	Stereo	Left and right channels
MAIN/L	Left channel	Left channel
SUB/R	Right channel	Right channel
None	Monaural (on normal audio track)	Sound on normal audio track

Notes on the AUDIO MONITOR button
- AUDIO MONITOR will not function with a monaural tape.
- AUDIO MONITOR does not operate when AUDIO MIX ON is selected in the MODE SET menu (see page 30).

Playback



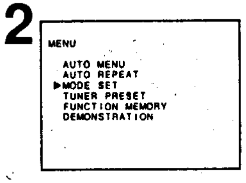
1



```
MENU

▶AUTO MENU
 AUTO REPEAT
 MODE SET
 TUNER PRESET
 FUNCTION MEMORY
 DEMONSTRATION
```

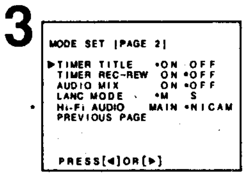
2



```
MENU

 AUTO MENU
 AUTO REPEAT
▶MODE SET
 TUNER PRESET
 FUNCTION MEMORY
 DEMONSTRATION
```

3

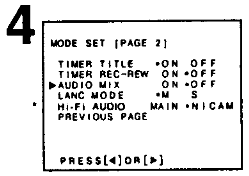


```
  MODE SET |PAGE 2|

  ▶TIMER TITLE    •ON  OFF
   TIMER REC-REW   ON •OFF
   AUDIO MIX       ON •OFF
   LANC MODE      •M   S
*  Hi-Fi AUDIO   MAIN •NICAM
   PREVIOUS PAGE


   PRESS[◀]OR[▶]
```

4

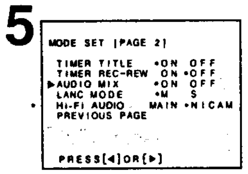


```
  MODE SET |PAGE 2|

   TIMER TITLE    •ON  OFF
   TIMER REC-REW   ON •OFF
  ▶AUDIO MIX       ON •OFF
   LANC MODE      •M   S
*  Hi-Fi AUDIO   MAIN •NICAM
   PREVIOUS PAGE


   PRESS[◀]OR[▶]
```

5

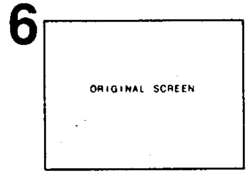


```
  MODE SET |PAGE 2|

   TIMER TITLE    •ON  OFF
   TIMER REC-REW   ON •OFF
  ▶AUDIO MIX      •ON  OFF
   LANC MODE      •M   S
*  Hi-Fi AUDIO   MAIN •NICAM
   PREVIOUS PAGE


   PRESS[◀]OR[▶]
```

6



```
ORIGINAL SCREEN
```

*Hi-Fi AUDIO for SLV-715UB only.

To listen to the sounds on the hi-fi video track and normal audio track mixed

It is possible to output the sounds recorded on the hi-fi video track and the normal audio track simultaneously. This function is useful when you listen to an audio-inserted tape.

1 **Press MENU in the stop mode.**
The main MENU appears.

2 **Move cursor with ▲ or ▼ to MODE SET.**

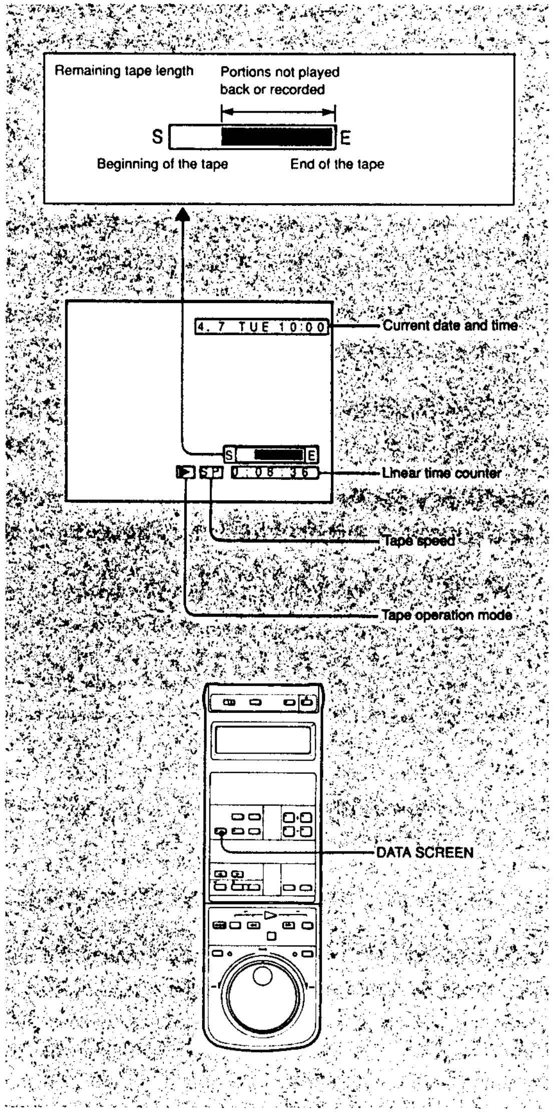
3 **Press EXE.**
If the MODE SET [PAGE 1] menu appears, move cursor with ▲ or ▼ to NEXT PAGE and press EXE.
The MODE SET [PAGE 2] menu appears.

4 **Move cursor with ▲ or ▼ to AUDIO MIX.**

5 **Select ON or OFF by ◀ or ▶.**
ON: to make AUDIO MONITOR inoperative so that the sounds of the hi-fi video and normal audio tracks are always output.
OFF: to make AUDIO MONITOR operative so that you can select the sound to be heard.

6 **Press EXE to store the setting and return to the original screen.**

Note
Reset the AUDIO MIX setting to OFF after listening to the particular tape.



Data Screen

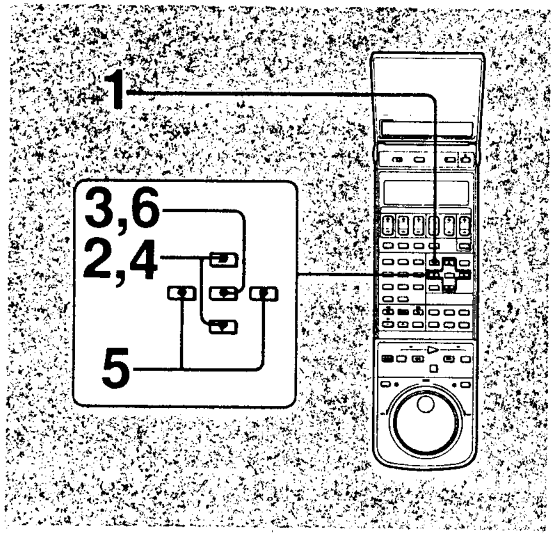
Data screen information illustrated on the left will automatically appear on the screen during playback or recording as a reference. Note, however, that the data screen will not be displayed in the following cases:

- When the VTR-TV connection is made via the LINE OUT VIDEO jack.
- When the VTR is in slow motion or playback pause mode.

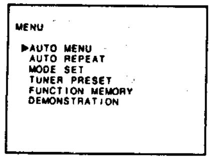
■ **To erase or display the data screen**
Press DATA SCREEN.

Notes on the remaining tape length indicator

- The remaining tape length indicator only shows the approximate amount of tape left.
- The indication may shift vertically during the fast-forward or rewind mode.
- It may not operate properly when a short tape, such as the E-30 and VHS-C cassettes, or when a non-standardized tape is inserted.



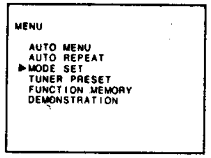
1



```
MENU

▶AUTO MENU
 AUTO REPEAT
 MODE SET
 TUNER PRESET
 FUNCTION MEMORY
 DEMONSTRATION
```

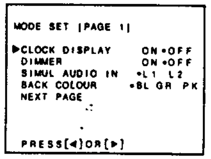
2



```
MENU

 AUTO MENU
 AUTO REPEAT
▶MODE SET
 TUNER PRESET
 FUNCTION MEMORY
 DEMONSTRATION
```

3,4,5

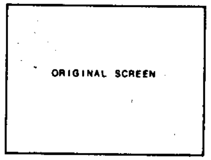


```
MODE SET |PAGE 1|

▶CLOCK DISPLAY      ON •OFF
 DIMMER             ON •OFF
 SIMUL AUDIO IN    •L1  L2
 BACK COLOUR      •BL GR  PK
 NEXT PAGE


 PRESS[◀]OR[▶]
```

6



```
ORIGINAL SCREEN
```

To Erase the Current Date and Time from the Data Screen

1 **Press MENU**
The main MENU appears.

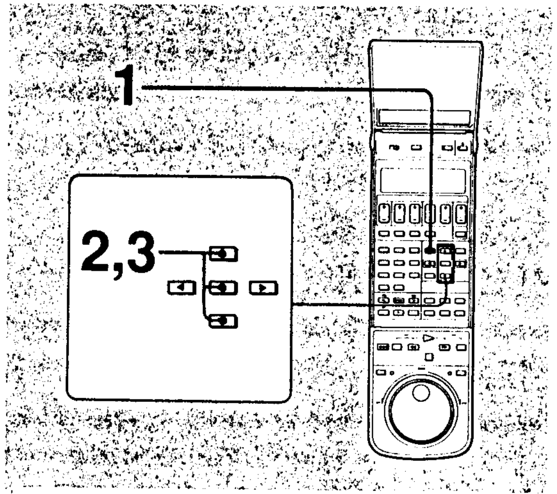
2 **Move cursor with ▲ or ▼ to MODE SET.**

3 **Press EXE.**
If the MODE SET [PAGE 2] menu appears, move cursor with ▼ or ▲ to PREVIOUS PAGE and press EXE.
The MODE SET [PAGE 1] menu is displayed.

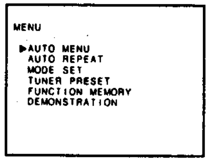
4 **Move cursor with ▲ or ▼ to CLOCK DISPLAY.**

5 **Press ◀ or ▶ to move the dot to OFF to erase the current date and time and to ON to display them.**

6 **Press EXE to store the setting and return to the original screen.**



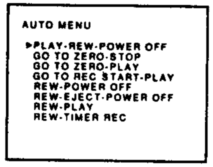
1



```
MENU

▶AUTO MENU
 AUTO REPEAT
 MODE SET
 TUNER PRESET
 FUNCTION MEMORY
 DEMONSTRATION
```

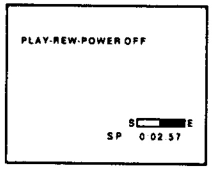
2



```
AUTO MENU

▶PLAY-REW-POWER OFF
 GO TO ZERO-STOP
 GO TO ZERO-PLAY
 GO TO REC START-PLAY
 REW-POWER OFF
 REW-EJECT-POWER OFF
 REW-PLAY
 REW-TIMER REC
```

3



```
PLAY-REW-POWER OFF




                  S▭▬▬E
               SP   0 02 57
```

Assigning a Desired Operation Mode — AUTO MENU

Guided by the AUTO MENU, you can make the VTR enter the desired operational sequence automatically.

1 **Press MENU while the VTR is in the stop mode.**
The main MENU appears.

2 **Move cursor with ▲ or ▼ to AUTO MENU and press EXE.**
The AUTO MENU appears.

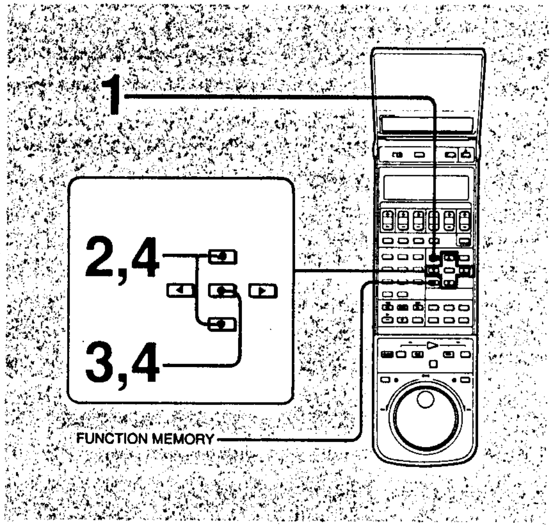
3 **Move cursor with ▲ or ▼ to the desired operational sequence and press EXE.**
The selected operation will begin.
The selected operating mode will be superimposed on the TV screen for a few seconds. The AUTO indicator will light in the display window during AUTO MENU operation.

Note on AUTO MENU operation
AUTO MENU cannot be operated if there is no cassette installed or if the VTR is in modes other than stop mode. A short beep alerts you if the AUTO MENU is not operable.

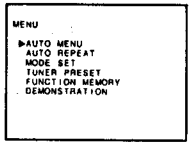
Note on "GO TO REC START — PLAY"
The recording start point data will be erased from the memory after the following operations and "GO TO REC START — PLAY" will not be operable.
- When COUNTER RESET is pressed.
- When cassette is ejected and re-inserted.
- When HIGH SPEED REWIND is pressed.

Auto Menu Modes

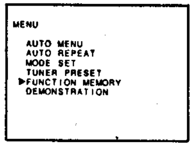
- **PLAY — REW — POWER OFF** plays back the tape, rewinds the tape when the end is reached, and turns the power off.
- **GO TO ZERO — STOP** searches for the counter zero point and stops. See page 46.
- **GO TO ZERO — PLAY** searches for the counter zero point and starts playback. See page 46.
- **GO TO REC START — PLAY** searches for the recording start point and starts playback.
- **REW — POWER OFF** rewinds the tape to the beginning and turns the power off.
- **REW — EJECT — POWER OFF** rewinds the tape to the beginning, ejects the cassette, and turns off the power.
- **REW — PLAY** rewinds the tape to the beginning and starts playback.
- **REW — TIMER REC** rewinds the tape to the beginning and enters the timer recording standby mode for timer recording when a timer recording is preset. A cassette with its safety tab removed will be ejected.
When the VTR is in the timer recording standby mode, 1) press TIMER REC ON/OFF to cancel the standby mode, 2) turn on the power of the VTR, 3) call up the AUTO MENU referring to page 33.


1
2,4
3,4
FUNCTION MEMORY

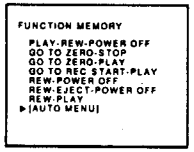
1


MENU
▶AUTO MENU
AUTO REPEAT
MODE SET
TUNER PRESET
FUNCTION MEMORY
DEMONSTRATION

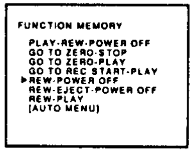
2


MENU
AUTO MENU
AUTO REPEAT
MODE SET
TUNER PRESET
▶FUNCTION MEMORY
DEMONSTRATION

3


FUNCTION MEMORY
PLAY-REW-POWER OFF
GO TO ZERO-STOP
GO TO ZERO-PLAY
GO TO REC START-PLAY
REW-POWER OFF
REW-EJECT-POWER OFF
REW-PLAY
▶[AUTO MENU]

4


FUNCTION MEMORY
PLAY-REW-POWER OFF
GO TO ZERO-STOP
GO TO ZERO-PLAY
GO TO REC START-PLAY
▶REW-POWER OFF
REW-EJECT-POWER OFF
REW-PLAY
[AUTO MENU]

Assigning an Auto Menu Mode to the FUNCTION MEMORY Button

One of the AUTO MENU modes can be assigned to the FUNCTION MEMORY button on the Commander.

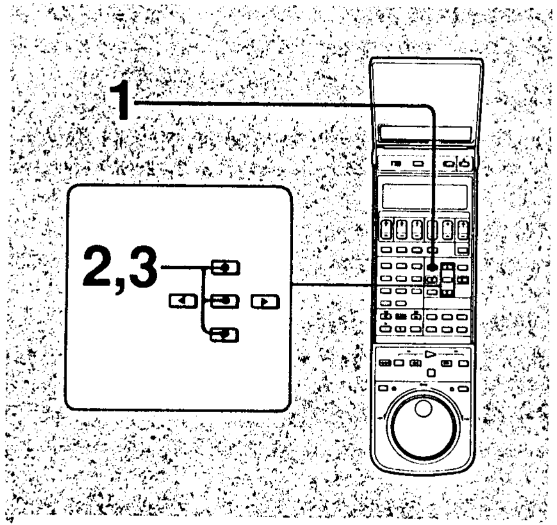
1 **Press MENU.**
The main MENU appears.

2 **Move cursor with ▲ or ▼ to FUNCTION MEMORY.**

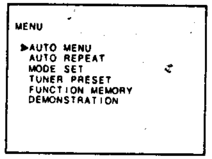
3 **Press EXE.**
The FUNCTION MEMORY menu appears.

4 **Move cursor to the desired operational sequence and press EXE.**
The selected operation will be activated every time FUNCTION MEMORY is pressed when the VTR is in stop mode.

If you have selected "AUTO MENU" in step 4, the AUTO MENU will be displayed immediately after FUNCTION MEMORY is pressed, providing a short cut to the AUTO MENU.

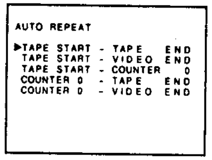


1


```
MENU

▶AUTO MENU
 AUTO REPEAT
 MODE SET
 TUNER PRESET
 FUNCTION MEMORY
 DEMONSTRATION
```

2


```
AUTO REPEAT

▶TAPE START - TAPE   END
 TAPE START - VIDEO  END
 TAPE START - COUNTER  0
 COUNTER 0  - TAPE   END
 COUNTER 0  - VIDEO  END
```

Assigning a Desired Portion of the Tape Played Back Repeatedly—AUTO REPEAT

You can make the VTR to repeat playback of a certain portion of the tape automatically.

1 **Press MENU while the VTR is in the stop mode.**
The main MENU appears.

2 **Move cursor with ▲ or ▼ to AUTO REPEAT and press EXE.**
The AUTO REPEAT menu appears.

3 **Move cursor with ▲ or ▼ to the desired item you want to play back repeatedly and press EXE.**
The VTR will rewind or advance the tape rapidly to the start point of the selected repeat portion and start playback. Playback of that portion will repeat **five times** and then the VTR will rewind the tape to the start point. The AUTO indicator will light in the display window during repeat playback.

■ **To stop playback**
Press ■ STOP on the VTR or the Commander.

Notes on AUTO REPEAT operation
- If you press any tape operation button during repeat playback, AUTO REPEAT will be released.
- AUTO REPEAT cannot be operated if there is no cassette installed or if the VTR is in modes other than stop mode.
  A short beep alerts you if the AUTO REPEAT is not operable.

Auto Repeat Menu

■ **TAPE START—TAPE END** repeats playback from the beginning to the end of the tape.

■ **TAPE START—VIDEO END** repeats playback from the beginning of the tape to the end of the recorded portion.

■ **TAPE START— COUNTER 0** repeats playback from the beginning of the tape to the counter zero point.

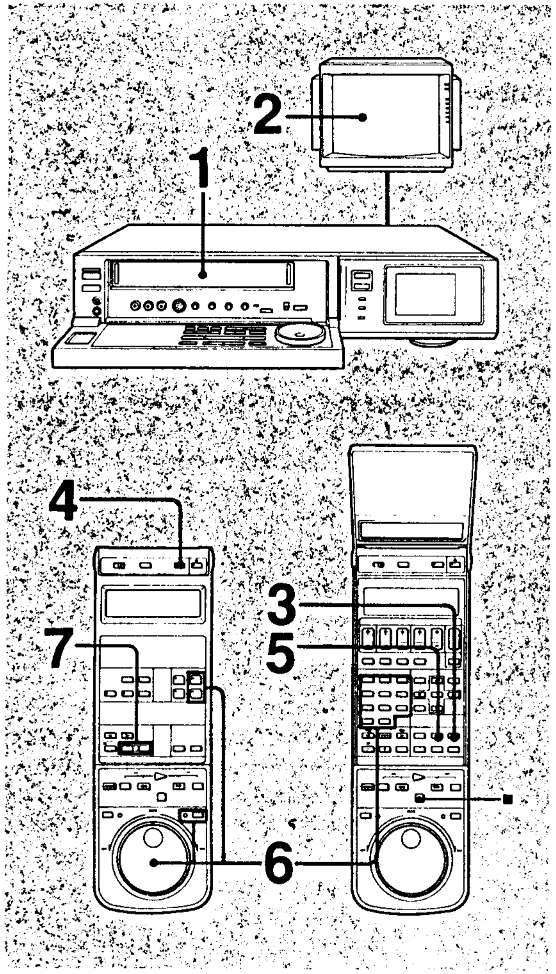
■ **COUNTER 0 —TAPE END** repeats playback from the counter zero point to the end of the tape.

■ **COUNTER 0—VIDEO END** repeats playback from the counter zero point to the end of the recorded portion of the tape.

When you select the menu including "COUNTER 0"
Before activating AUTO REPEAT, press COUNTER RESET on the Commander to set the tape counter to 0H00M00S at the desired point.

Note on "VIDEO END"
The VTR normally detects a blank of about 10 seconds on the tape as "VIDEO END". However, for about 30 seconds from the beginning of the tape, the VTR does not do this. Accordingly, AUTO REPEAT will not work correctly in the following cases.
- When there is a blank of more than 10 seconds in the assigned repeat portion (more than 40 seconds at the beginning).
- When there is a blank of less than 10 seconds after the recorded portion to be played back repeatedly.
- When the tape is recorded to its end. (Assign the menu including "TAPE END".)

Recording TV Programmes



Before You Begin

- Check that all of the preparations are complete.
- The buttons on the VTR with the same name or mark can be used in the operation below as well.
- Data screen displays will not be recorded on the tape.

Operation

1 **Insert a cassette.**

2 **Turn on the TV.**
Set to the programme position for the VTR playback if VTR-TV connection is made only via the aerial sockets. Select VTR input if VTR-TV connection is via the EURO-AV (LINE 1) connector or LINE OUT VIDEO/AUDIO jacks.

3 **Press INPUT SELECT so that the TUNER indicator appears in the display window.**

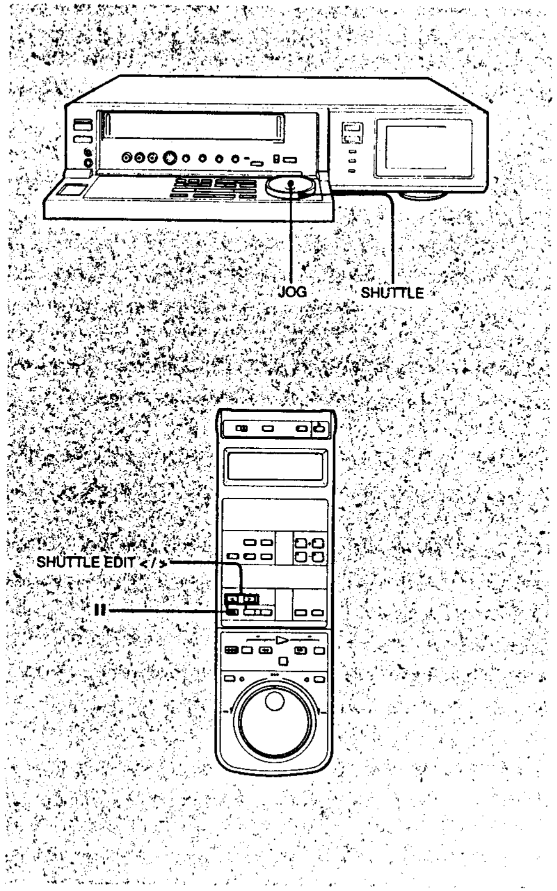
4 **Press TV/VTR so that the VTR indicator lights in the display window.**
(Only when connection is made via EURO-AV (LINE 1).)

5 **Select the recording speed, SP or LP.**

6 **Select the programme position to be recorded in any of the following ways:**
- Press PROG +/–.
- Press the programme position number buttons. To select 23, press -/--, then 2 and 3. To select 9, press 0 and 9.
- Press the PROG function button to light the indicator and turn JOG on the Commander. Turn it clockwise for higher numbered programme positions; counterclockwise for lower numbered programme positions.

7 **Press the right button while pressing ● REC.**
Recording will begin. When the tape reaches the end, it will be automatically rewound to the beginning. Pressing the ● REC button on the VTR also activates the recording.

To stop recording, press ■.



To Stop Recording Momentarily at an Unwanted Scene

1 **Press II when an unwanted scene appears.**
Recording is stopped and the VTR enters the recording pause mode.

2 **Press II again to resume recording at the desired scene.**

To Cut Out an Unwanted Scene by Recording Over It

1 **Press II during recording to enter the recording pause mode.**

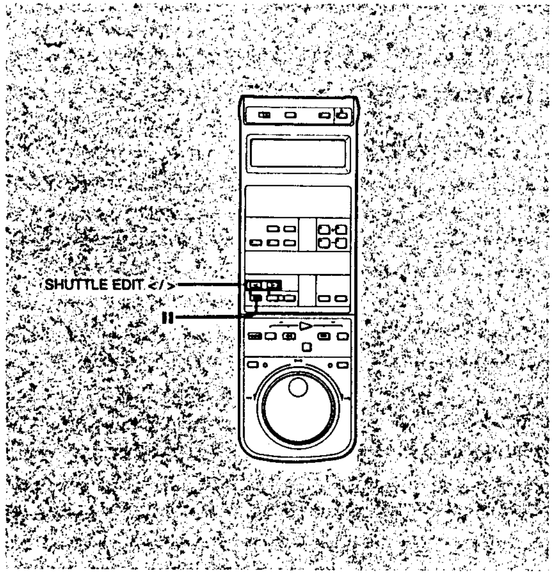
2 **Locate the point where you wish to continue recording using JOG/SHUTTLE on the VTR or SHUTTLE EDIT on the Commander.**

3 **At the desired point, release JOG, SHUTTLE or SHUTTLE EDIT.**

4 **Press II to resume recording.**

■ How to use the JOG dial and the SHUTTLE ring on the VTR
Turn the dial and the ring during playback or in the recording pause mode.
Using JOG, playback speed and the direction can be selected according to the turnig speed and direction.
Using SHUTTLE, playback speed and the direction can be selected according to the turning angle and direction.
Release the dial or ring to enter the playback pause mode or resume the recording pause mode.

Recording TV Programmes

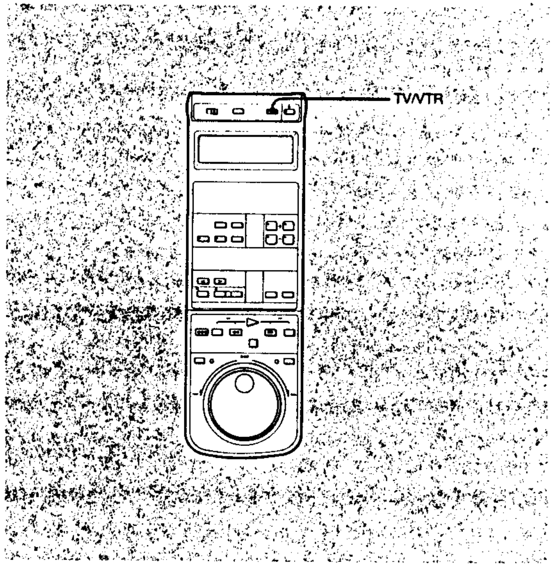


■ How to use the SHUTTLE EDIT buttons on the Commander

Use the buttons in the playback pause mode or in the recording pause mode. Keep < pressed to obtain 1/5 playback picture in reverse, and keep > pressed to obtain 1/5 playback picture. Release the button to resume the playback pause or recording pause mode.

To record over from playback mode

1) Locate the point from where you want to re-record using JOG/SHUTTLE on the VTR or the Commander, or SHUTTLE EDIT and release it.
2) Press ● REC and its right button to enter the recording pause mode.
3) Press II to start recording.



Watching a TV Broadcast While Recording Another

■ If VTR-TV connection is made using the EURO-AV (LINE 1) connector

Press TV/VTR to turn off the VTR indicator.
The programme selected on the TV appears on the screen.

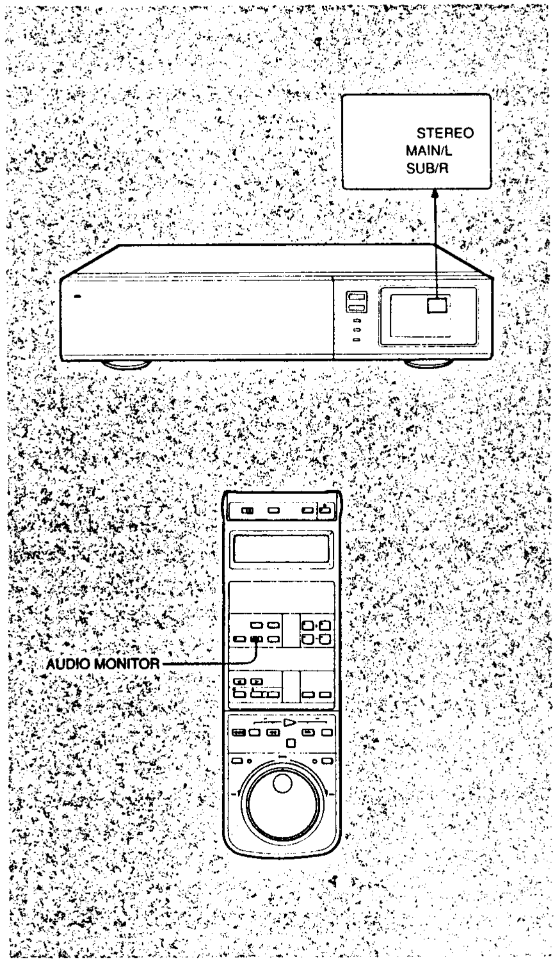
■ If VTR-TV connection is made using the LINE OUT VIDEO/AUDIO jacks

Select the tuner input on the TV and change the programme position on the TV.

■ If VTR-TV connection is made using only the aerial sockets

Change the programme position on the TV.

Recording Stereo/Bilingual Programmes



SLV-715/715VP

The SLV-715/715VP receive and record stereo/bilingual programmes based on the "Zweiton" system adopted in Germany (Former West Germany).

■ Stereo programme

When a stereo programme is received, STEREO appears in the display window.
The AUDIO MONITOR button does not function for the stereo programmes of the Zweiton system.

■ Bilingual programme

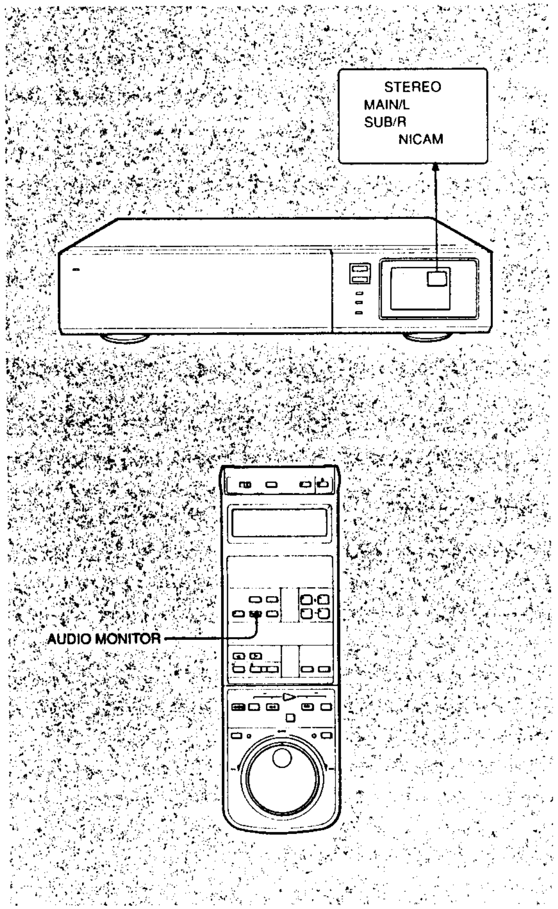
When a bilingual programme is received, MAIN/L appears in the display window.
Press the AUDIO MONITOR button repeatedly until the desired sound is heard. The sound is selected cyclically in the order as follows:

Display	Sound to be heard
MAIN/L	Main sound
SUB/R	Sub sound
MAIN/L SUB/R	Main sound on the left channel Sub sound on the right channel

■ To record

A stereo or bilingual programme will be recorded on the hi-fi video track and normal audio track as follows regardless of the sound being monitored.

Track	Sound to be recorded	
	Stereo	Bilingual
Hi-fi video Left channel	Left channel	Main
Right channel	Right channel	Sub
Normal audio	Monaural (L and R channels mixed)	Main



SLV-715UB

The SLV-715UB receives and records stereo/bilingual programmes based on the "NICAM" system adopted in the United Kingdom and Nordic countries.

■ Stereo programme

When a stereo programme is received, STEREO and NICAM appear in the display window.
Press the AUDIO MONITOR button to select the sound to be heard. Each time AUDIO MONITOR is pressed, the stereo (NICAM L and R channels) or the standard sound is selected alternately.

Display	Sound to be heard
STEREO	Left channel sound on the left channel Right channel sound on the right channel
None	Standard sound

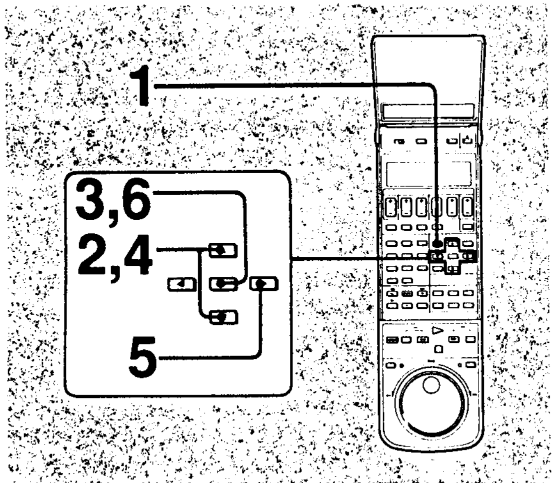
■ Bilingual programme

When a bilingual programme is received, NICAM and MAIN/L appear in the display window.
Press the AUDIO MONITOR button repeatedly until the desired sound is heard. The sound is selected cyclically in the order as follows:

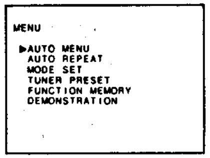
Display	Sound to be heard
MAIN/L	Main sound
SUB/R	Sub sound
MAIN/L SUB/R	Main sound on the left channel Sub sound on the right channel
None	Standard sound

Understanding the NICAM broadcast
NICAM broadcasting has two-channel digital sounds called NICAM L and R channels in addition to the standard sound. The NICAM L and R are assigned to the stereo left and right channels or the main and sub sounds of a bilingual programme. The standard sound of most NICAM broadcasts is the mixed sound of the left and right channels for a stereo programme, and the main sound for a bilingual programme.

Recording Stereo/Bilingual Programmes



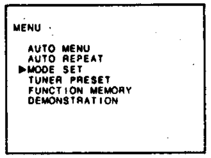
1



```
MENU

▶AUTO MENU
 AUTO REPEAT
 MODE SET
 TUNER PRESET
 FUNCTION MEMORY
 DEMONSTRATION
```

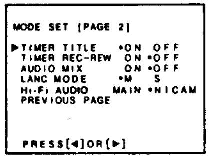
2



```
MENU

 AUTO MENU
 AUTO REPEAT
▶MODE SET
 TUNER PRESET
 FUNCTION MEMORY
 DEMONSTRATION
```

3

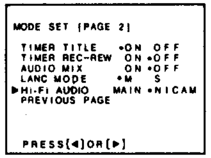


```
MODE SET [PAGE 2]

▶TIMER TITLE    •ON  OFF
 TIMER REC-REW   ON •OFF
 AUDIO MIX       ON •OFF
 LANC MODE      •M   S
 Hi-Fi AUDIO    MAIN •NICAM
 PREVIOUS PAGE


 PRESS[◀]OR[▶]
```

4

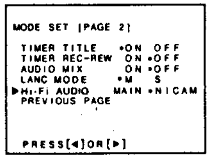


```
MODE SET [PAGE 2]

 TIMER TITLE    •ON  OFF
 TIMER REC-REW   ON •OFF
 AUDIO MIX       ON •OFF
 LANC MODE      •M   S
▶Hi-Fi AUDIO    MAIN •NICAM
 PREVIOUS PAGE


 PRESS[◀]OR[▶]
```

5

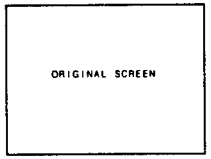


```
MODE SET [PAGE 2]

 TIMER TITLE    •ON  OFF
 TIMER REC-REW   ON •OFF
 AUDIO MIX       ON •OFF
 LANC MODE      •M   S
▶Hi-Fi AUDIO    MAIN •NICAM
 PREVIOUS PAGE


 PRESS[◀]OR[▶]
```

6



```
ORIGINAL SCREEN
```

■ To record NICAM broadcasts

1 **Before recording a NICAM broadcast, press MENU.**
The main MENU appears.

2 **Move cursor with ▲ or ▼ to MODE SET.**

3 **Press EXE.**
If the MODE SET [PAGE 1] menu appears, move cursor with ▲ or ▼ to NEXT PAGE and press EXE.
The MODE SET [PAGE 2] menu appears.

4 **Move cursor with ▲ or ▼ to HI-FI AUDIO.**

5 **Press ▶ to move the dot to NICAM.**

6 **Press EXE to store the setting.**

With NICAM setting, NICAM broadcasts will be recorded as in the following table.

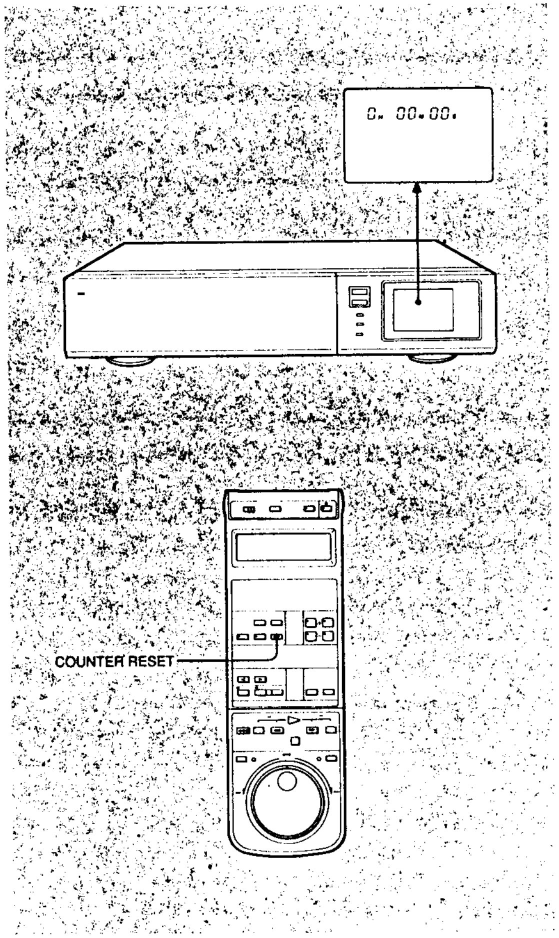
Track	Sound to be recorded	
	Stereo	Bilingual
Hi-fi video		
Left channel	Left channel	Main
Right channel	Right channel	Sub
Normal audio	Standard	Standard

- When there is no NICAM broadcast, the standard sound will be recorded on both the hi-fi video track and the normal audio track.

■ To record the standard sound only

Follow the operations above and set Hi-Fi AUDIO to MAIN in step **5**.
The standard sound will be recorded on the left and right channels of the hi-fi video track and the normal audio track.

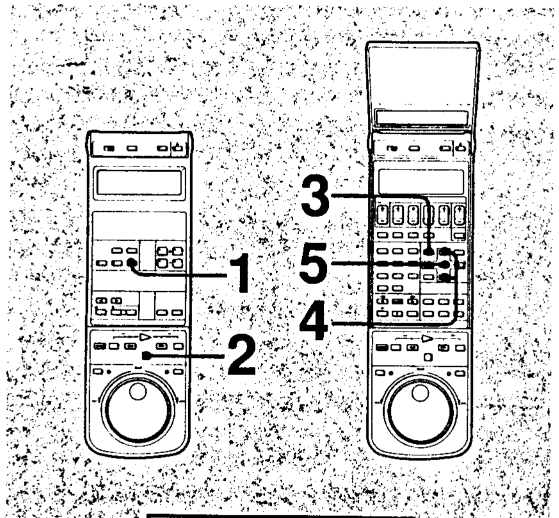
Use of the Tape Counter



Understanding Counter Zero Position

The tape counter on this VTR can be used as a reference when you wish to locate a certain scene after recording or playback. Press COUNTER RESET to set the counter to "0H00M00S" (counter zero position) before operation. The VTR will keep counting the length of tape being played back or recorded. Note, however, that the tape counter will not count the portions of tape with no signals recorded. This VTR automatically resets the counter to zero whenever a cassette is inserted. Two additional features using COUNTER RESET are available on this VTR: Tape Return and Tape Return Play.

Use of the Tape Counter



AUTO MENU

PLAY-REW-POWER OFF
▶GO TO ZERO-STOP
GO TO ZERO-PLAY
GO TO REC START-PLAY
REW-POWER OFF
REW-EJECT-POWER OFF
REW-PLAY
REW-TIMER REC

AUTO MENU

PLAY-REW-POWER OFF
GO TO ZERO-STOP
▶GO TO ZERO-PLAY
GO TO REC START-PLAY
REW-POWER OFF
REW-EJECT-POWER OFF
REW-PLAY
REW-TIMER REC

Tape Return

The VTR can search for the counter zero position and stop. This function is useful for locating a particular scene after recording or playback.

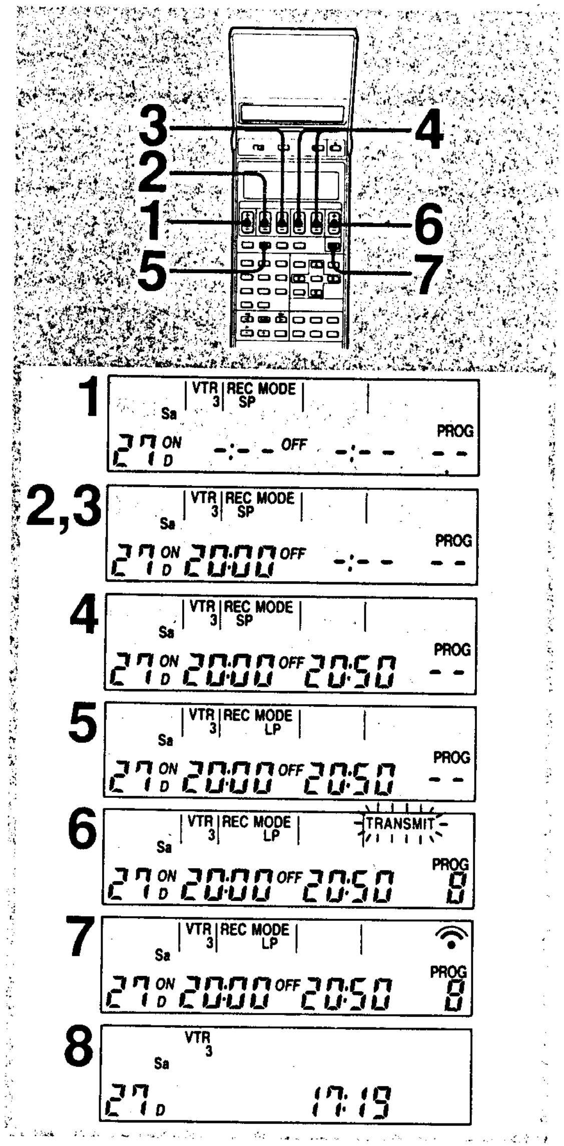
1. **Press COUNTER RESET at the desired scene during recording or playback.**
2. **Press ■ to stop after recording or playback.**
3. **Press MENU and select AUTO MENU.**
   See "Assigning a Desired Operation Mode" for operation.
4. **Move cursor to "GO TO ZERO-STOP."**
5. **Press EXE.**

Tape Return Play

The VTR will even search and start playback from the counter zero position after recording or playback.

1. **Repeat steps 1 to 3 in the Tape Return operation.**
2. **Move cursor to "GO TO ZERO-PLAY".**
3. **Press EXE.**

Timer Activated Recording


3
2
1
5
4
6
7
1
VTR 3 REC MODE SP
Sa
PROG
27 ON D -:-- OFF -:-- --
2,3
VTR 3 REC MODE SP
Sa
PROG
27 ON D 20:00 OFF -:-- --
4
VTR 3 REC MODE SP
Sa
PROG
27 ON D 20:00 OFF 20:50 --
5
VTR 3 REC MODE LP
Sa
PROG
27 ON D 20:00 OFF 20:50 --
6
VTR 3 REC MODE LP
TRANSMIT
Sa
PROG
27 ON D 20:00 OFF 20:50 8
7
VTR 3 REC MODE LP
Sa
PROG
27 ON D 20:00 OFF 20:50 8
8
VTR 3
Sa
27 D 17:19

Timer Recording on this VTR

Up to eight preselected programmes can be set on this VTR, up to one month in advance.

Before You Begin

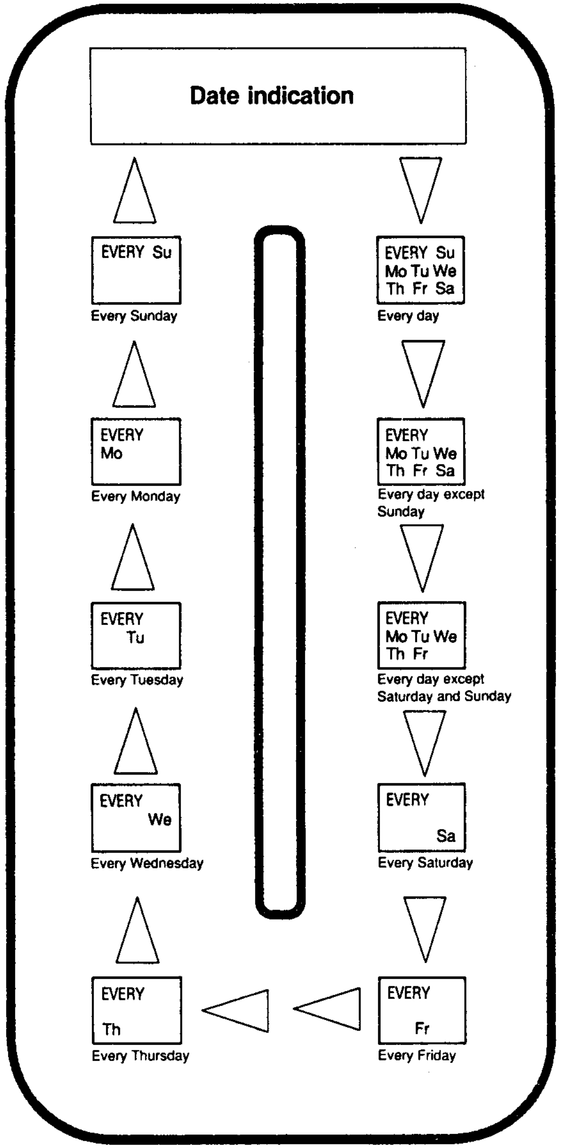
- Turn on the TV and adjust it to view the VTR output.
- Check to see that the clock on the Commander and the VTR shows the present time.
- To operate the SLV-715VP, read "VPS Function" first. (See page 56.)

Operation

Example: To record a programme broadcast from 20:00 to 20:50 on Saturday, July 27, 1991 on programme position 8 in LP mode.

1. **Open the cover of the Commander and press D until 27 appears.**
   The day of the week, Sa (Saturday), is automatically set.
2. **Set the recording start hour with TURN ON H.**
3. **Set the recording start minute with TURN ON M.**
4. **Set the recording end hour and minute with TURN OFF H and M referring to step 2 and 3.**
5. **Set the recording speed, SP or LP, with REC MODE.**
6. **Set the programme position with PROG.**
   The TRANSMIT indicator blinks to indicate that all of the items are entered.
7. **Point the Commander to the VTR and press TRANS.**
   With a beep sound, the settings appear in the display window of the VTR for a few seconds and the VTR enters the timer recording standby mode. The PROGRAM LIST appears on the screen for a few seconds if the VTR is turned on.
8. **Close the cover of the Commander so that the present time appears on the LCD.**
   The VTR turns on, starts recording at the selected time, and turns off after recording ends.

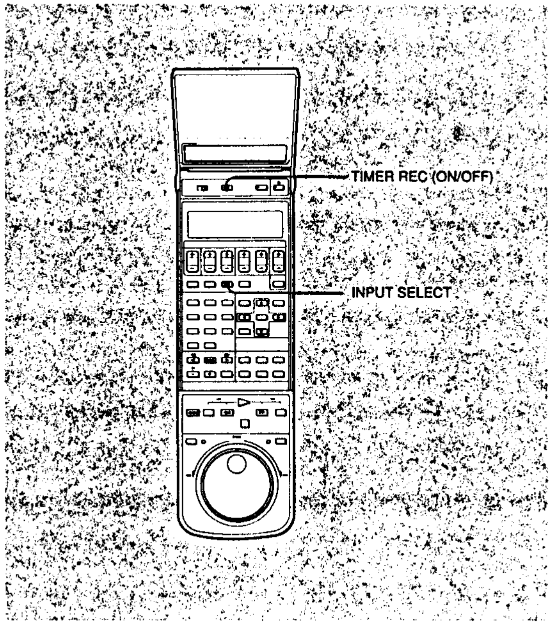
Timer Activated Recording


Date indication
EVERY Su
Every Sunday
EVERY Mo
Every Monday
EVERY Tu
Every Tuesday
EVERY We
Every Wednesday
EVERY Th
Every Thursday
EVERY Su Mo Tu We Th Fr Sa
Every day
EVERY Mo Tu We Th Fr Sa
Every day except Sunday
EVERY Mo Tu We Th Fr
Every day except Saturday and Sunday
EVERY Sa
Every Saturday
EVERY Fr
Every Friday

Daily/Weekly Recording

This VTR can be preset to record the same programme each day of the week (daily recording) or the same programme on a specific day of every week.

Press D – (minus) on the Commander to change the LCD in the order shown in the illustration instead of step 1 in the "Operation." When the desired recording mode is set and transmitted to the VTR, the corresponding indicator lights in the display window.


TIMER REC (ON/OFF)
INPUT SELECT

To Set Other Programmes

Repeat steps 1 to 7 in "Operation" before step 8.

To Stop Timer Recording

Press TIMER REC ON/OFF.

To Record from Equipment Connected to EURO-AV (LINE 1), EURO-AV (LINE 3), or LINE IN 2 VIDEO/AUDIO

Press INPUT SELECT anytime in step 1 to 6 to change the indication from PROG – – to LINE L1 (for the EURO-AV (LINE 1) connector), LINE L2 (for the LINE IN 2 VIDEO/AUDIO jacks) or LINE L3 (for the EURO-AV (LINE 3) connector).

To Record TV Programme and Audio Signals from Equipment Connected to EURO-AV (LINE 1) or LINE IN 2 AUDIO Simultaneously

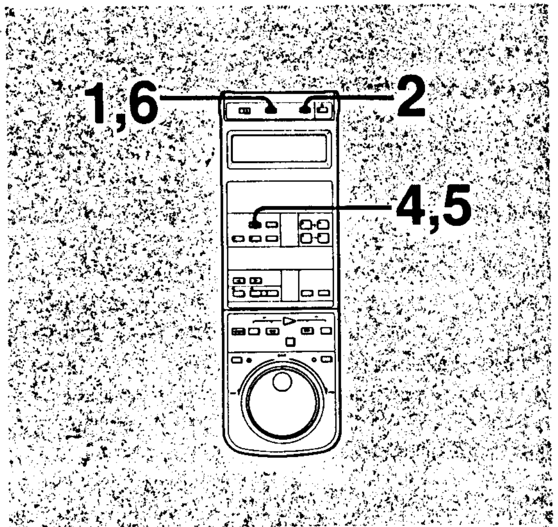
Set the desired programme position and press INPUT SELECT to indicate SIMUL in step 6. For simulcast recording, see page 65.

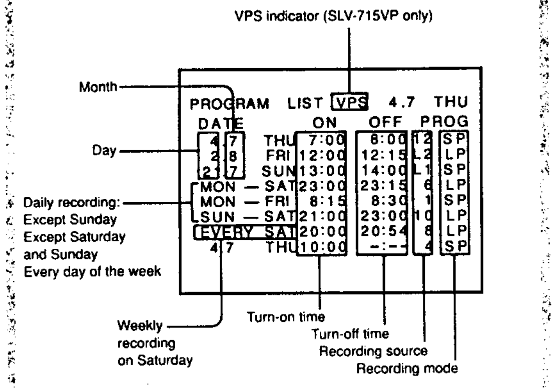
If a short beep sounds repeatedly when TRANS is pressed
- No cassette is inserted.
- An illogical setting has been made.
- Timer setting can only be performed when the VTR is in turned off, stop, or timer recording mode.
- Eight timer settings have already been made.
- The tape is at its end.

If the tape is ejected after pressing TRANS
The safety tab of the inserted cassette is removed.

Understanding "one month"
This VTR sets the timer to record programmes which are to be broadcast between today and one day before the same date of the next month.

Timer Activated Recording




VPS indicator (SLV-715VP only)
Month
Day
Daily recording:
Except Sunday
Except Saturday
and Sunday
Every day of the week
Weekly
recording
on Saturday
Turn-on time
Turn-off time
Recording source
Recording mode

```
PROGRAM  LIST VPS  4.7  THU
 DATE        ON    OFF  PROG
  4.7   THU  7:00   8:00 12 SP
  2.8   FRI 12:00  12:15 L2 LP
 21.7   SUN 13:00  14:00 L1 SP
 MON — SAT 23:00  23:15  6 LP
 MON — FRI  8:15   8:30  1 SP
 SUN — SAT 21:00  23:00 10 LP
 EVERY SAT 20:00  20:54  8 LP
  4.7   THU 10:00  -:--  4 SP
```

Checking the Timer Settings

The timer settings can be checked while the VTR is in the timer recording standby mode by displaying the programme list on the TV screen.

1 **Press TIMER REC ON/OFF to turn off the TIMER REC indicator in the display window of the VTR.**

2 **Turn on the VTR and press TV/VTR to light the VTR indicator in the display window.**
(Only when connection is made via EURO-AV (LINE 1).)

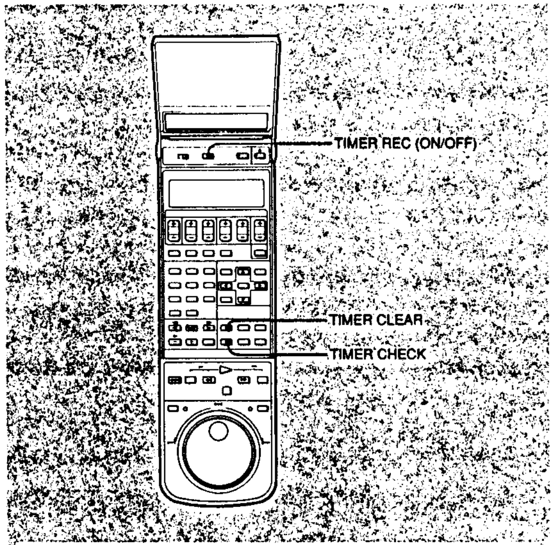
3 **Turn on the TV.**
Set to the programme position for VTR if VTR-TV connection is made via the aerial sockets. Select VTR input on the TV if VTR-TV connection is made via EURO-AV (LINE 1).

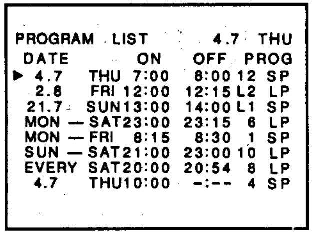
4 **Press TIMER ON SCREEN.**
The programme list appears.

5 **Press TIMER ON SCREEN again to return to the original screen.**

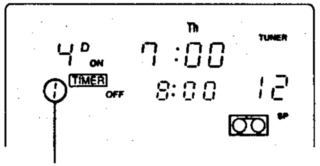
6 **Press TIMER REC ON/OFF to return to the timer recording standby mode.**

Checking the settings without releasing timer recording standby mode
Press TIMER CHECK. Each press changes the programme in the display window one after another.


TIMER REC (ON/OFF)
TIMER CLEAR
TIMER CHECK



```
PROGRAM  LIST        4.7  THU
 DATE        ON    OFF  PROG
▶ 4.7   THU  7:00   8:00 12 SP
  2.8   FRI 12:00  12:15 L2 LP
 21.7   SUN13:00  14:00 L1 SP
 MON — SAT23:00  23:15  6 LP
 MON — FRI  8:15   8:30  1 SP
 SUN — SAT21:00  23:00 10 LP
 EVERY SAT20:00  20:54  8 LP
  4.7   THU10:00  -:--  4 SP
```


Th
TUNER
4 D ON
7 :00
TIMER
OFF
8:00
12
SP

Programme number

Clearing/Correcting the Timer Setting

■ **Referring to the programme list**

1 **Display the programme list referring to steps 1 to 4 in "Checking the Timer Settings."**

2 **Press TIMER CHECK to call up and move cursor to the setting you want to clear or correct.**

3 **To clear the setting, press TIMER CLEAR.**
If there are other timer settings on the list, press TIMER REC ON/OFF to return to the timer recording standby mode.
To correct the setting, re-enter all of the items using the Commander. Refer to "Timer Activated Recording — Operation" steps 1 to 7.
The VTR automatically enters the timer recording standby mode.

■ **Clearing the setting without the programme list**

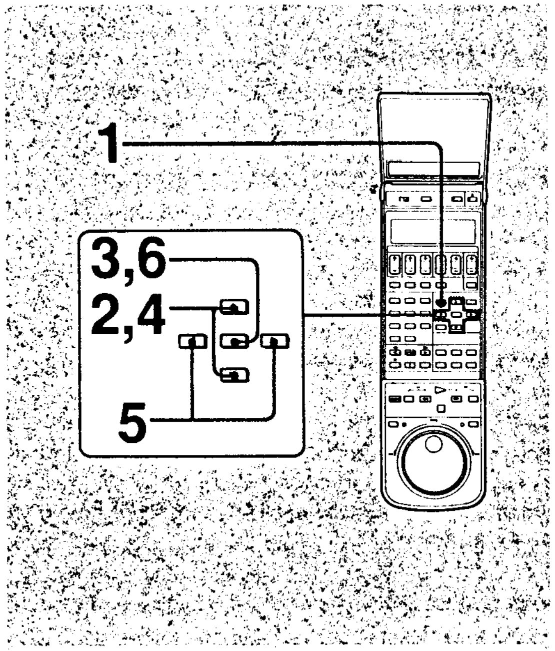
1 **Press TIMER REC ON/OFF.**

2 **Press TIMER CHECK repeatedly until the desired programme appears in the display window.**

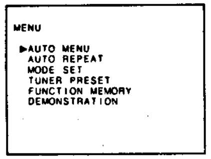
3 **Press TIMER CLEAR.**

4 **Press TIMER REC ON/OFF to return to the timer recording standby mode if there are other programmes set for timer recording.**

Timer Activated Recording



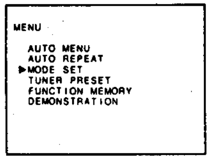
1



```
MENU

▶AUTO MENU
 AUTO REPEAT
 MODE SET
 TUNER PRESET
 FUNCTION MEMORY
 DEMONSTRATION
```

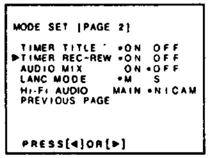
2



```
MENU

 AUTO MENU
 AUTO REPEAT
▶MODE SET
 TUNER PRESET
 FUNCTION MEMORY
 DEMONSTRATION
```

3,4,5

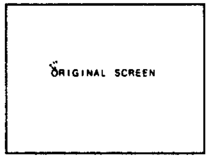


```
MODE SET [PAGE 2]

 TIMER TITLE   •ON  OFF
▶TIMER REC-REW •ON  OFF
 AUDIO MIX      ON •OFF
 LANC MODE     •M   S
 Hi-Fi AUDIO*   MAIN •NICAM
 PREVIOUS PAGE


 PRESS[◀]OR[▶]
```

6



```
ORIGINAL SCREEN
```

*Hi-Fi AUDIO for SLV-715UB only

To Automatically Rewind the Tape After Timer Recording

1 **Before setting the timer, press MENU.**

2 **Move cursor with ▲ or ▼ to MODE SET in the main menu.**

3 **Press EXE.**
If the MODE SET [PAGE 1] menu appears, move cursor with ▲ or ▼ to NEXT PAGE and press EXE. The MODE SET [PAGE 2] menu is displayed.

4 **Move cursor with ▲ or ▼ to TIMER REC — REW.**

5 **Press ◀ or ▶ to move the dot to ON.**
To cancel this setting, move the dot to OFF.

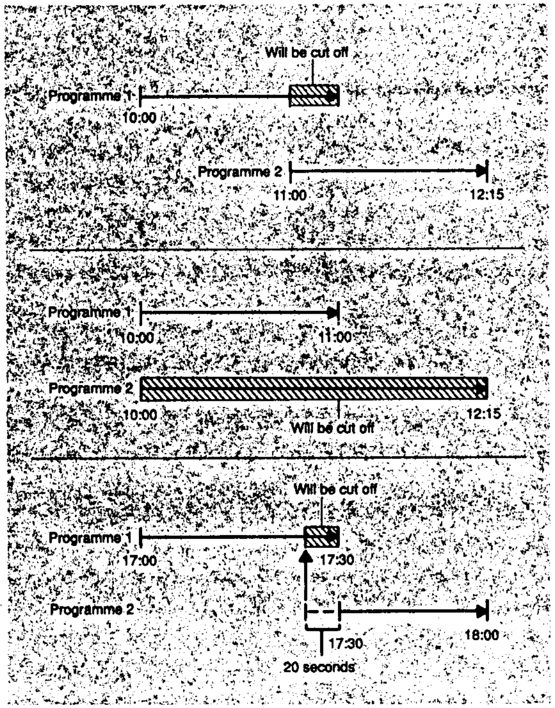
6 **Press EXE to store this setting and return to the original screen.**

Using the VTR during Timer Recording Standby Mode

1 **Press TIMER REC ON/OFF to turn off the TIMER REC indicator.**

2 **Turn on the power of the VTR.**
The VTR is ready to be used.

3 **After using the VTR, press TIMER REC ON/OFF to light the TIMER REC indicator. The VTR re-enters the timer recording standby mode.**



When the Timer Settings Overlap

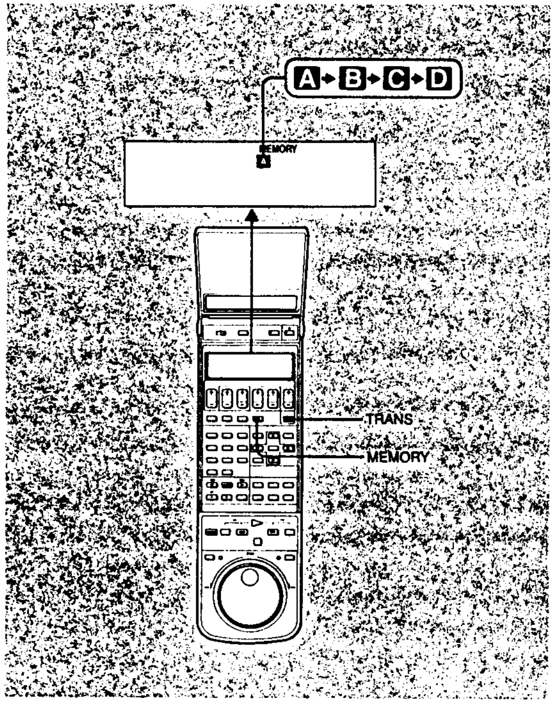
- **If the setting of two programmes overlap**
The recording of the following programme will begin automatically before the proceeding programme ends.

- **If the turn-on time of two programmes are the same**
The VTR will record the programme with the smaller programme number or listed first on the programme list. The programme with the larger programme number or listed lower in the list will be erased.

- **If the recording end time of programme 1 and the recording start time of programme 2 are the same**
The last 20 seconds of programme 1 will not be recorded because the VTR will enter the recording pause mode for programme 2 and records the timer title for programme 2 before programme 1 ends.

Power interruption during timer recording standby/timer recording mode
- If the power interruption lasts less than three hours, the VTR will enter the recording standby mode or resume timer recording when the power is recovered.
- If the power interruption exceeds three hours during the recording standby mode, the timer settings will be cleared.
Reset the clock and re-enter the items for timer recording again. If the power interruption occurred during timer recording, the recording will stop and the VTR will be turned off.

Timer Activated Recording



To Store the Frequently Used Timer Settings in the Commander

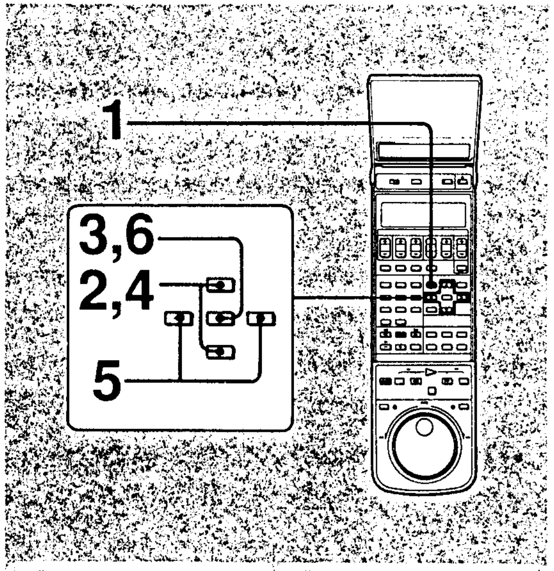
The items selected for one timer recording programme will be erased from the LCD when the Commander cover is closed, and cleared from the programme list as well when recording is over.
However, the turn-on/turn-off time and the programme position of up to four programmes can be stored in the Commander to be recalled later. This enables you to quickly access the most frequently used items, especially your favorite weekly programme, since the recording date will automatically be shifted to the next week after the recording is over.

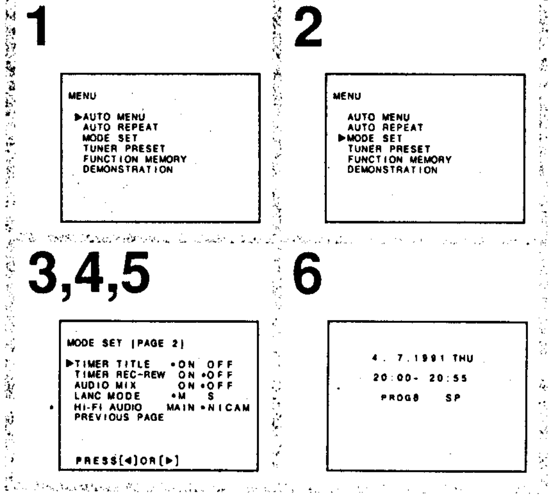
■ Storing the parameters

1. **Press MEMORY to indicate MEMORY A.**
2. **Set all of the items for timer recording referring to "Timer Activated Recording — Operation."**
3. **Press MEMORY to change the indication to B, C, or D, and repeat step 2 for other programmes.**
   The items set will be kept in the memory even when the Commander cover is closed.

■ Recalling and re-entering the items

1. **Press MEMORY to call up the desired memory indication (A, B, C, or D).**
2. **Make whatever changes necessary.**
3. **Press TRANS.**
   The VTR enters the timer recording standby mode.





1

```
MENU

▶AUTO MENU
 AUTO REPEAT
 MODE SET
 TUNER PRESET
 FUNCTION MEMORY
 DEMONSTRATION
```

2

```
MENU

 AUTO MENU
 AUTO REPEAT
▶MODE SET
 TUNER PRESET
 FUNCTION MEMORY
 DEMONSTRATION
```

3,4,5

```
MODE SET |PAGE 2|

▶TIMER TITLE    •ON  OFF
 TIMER REC-REW   ON •OFF
 AUDIO MIX       ON •OFF
 LANC MODE      •M   S
•HI-FI AUDIO    MAIN •NICAM
 PREVIOUS PAGE


 PRESS[◀]OR[▶]
```

6

```
4. 7.1991 THU
20:00- 20:55
PROG8   SP
```

*Hi-Fi AUDIO for SLV-715UB only

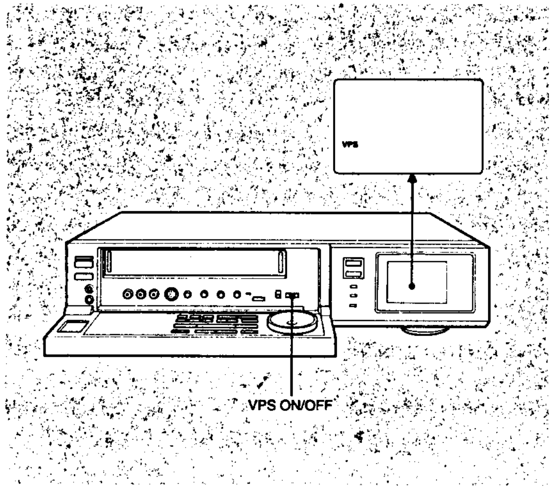
Recording a Timer Title

A timer title screen consisting of the date of recording, recording start/end time, the programme position and recording mode can be recorded on the tape for 3 seconds before the programme. The timer title is convenient for locating a desired programme when several programmes are recorded on a single tape.

1. **Before setting the timer, press MENU.**
   The main menu appears.
2. **Move cursor with ▲ or ▼ to MODE SET.**
3. **Press EXE.**
   If the MODE SET [PAGE 1] menu appears, move cursor with ▲ or ▼ to NEXT PAGE and press EXE. The MODE SET [PAGE 2] menu is displayed.
4. **Move cursor with ▲ or ▼ to TIMER TITLE.**
5. **Press ◀ or ▶ to move the dot to ON to record the timer title, and OFF to record without timer title.**
6. **Press EXE to store the setting.**
   If ON is selected in step 5, the timer title will automatically be recorded before the timer recording starts.

SLV-715VP only
The timer title cannot be recorded if the VPS indication is lit in the VTR's display window, regardless of the setting in the MODE SET [PAGE 2] menu.

Timer Activated Recording



VPS (Video Programme System) Function (SLV-715VP only)

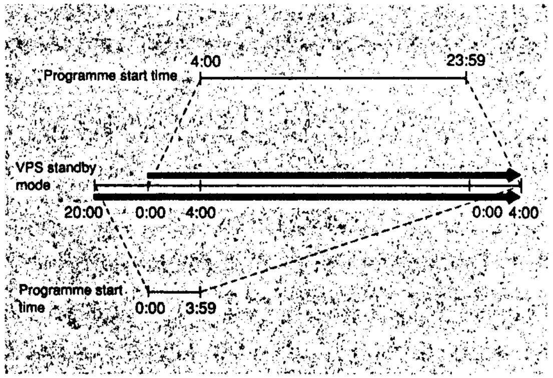
The German broadcasting system transmits VPS signals with the TV programmes which assure that your timer recording will be performed without missing any portion of it regardless of any earliness, time delay, extension, or broadcast interruption which might occur during that programme.

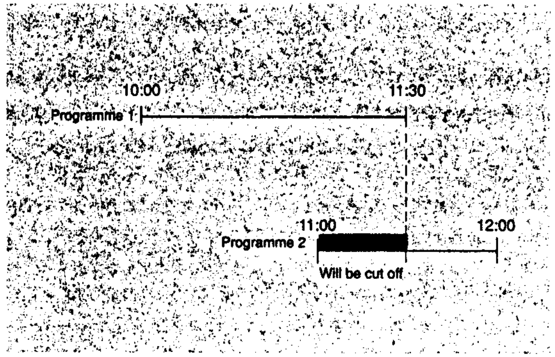
■ Operation

1. **Check whether VPS is transmitted with the programme to be recorded.**
2. **Press VPS ON/OFF so that the VPS indicator lights in the display window.**
3. **Set the timer referring to "Timer Activated Recording — Operation."**

Notes

- The VPS button is effective only when the TIMER REC indicator is turned off.
- If the VPS signal was not received on the VTR because it was too weak or because the station failed to transmit, timer recording will be performed without the VPS function regardless of the VPS indication.
- The recording will stop when the VTR receives a VPS programme interruption code during recording, for example, when an urgent news bulletin was inserted. As soon as the interrupted programme resumes, recording will continue.
- The timer title will not be recorded, regardless of the setting in the MODE SET [PAGE 2] menu, when the VPS function is activated.





■ VPS standby mode

The VTR will enter the standby mode for VPS recording far before the turn-on time and remains in the standby mode passed the preset turn-on time until the VPS signal is received to prepare for any change in the actual broadcast time.

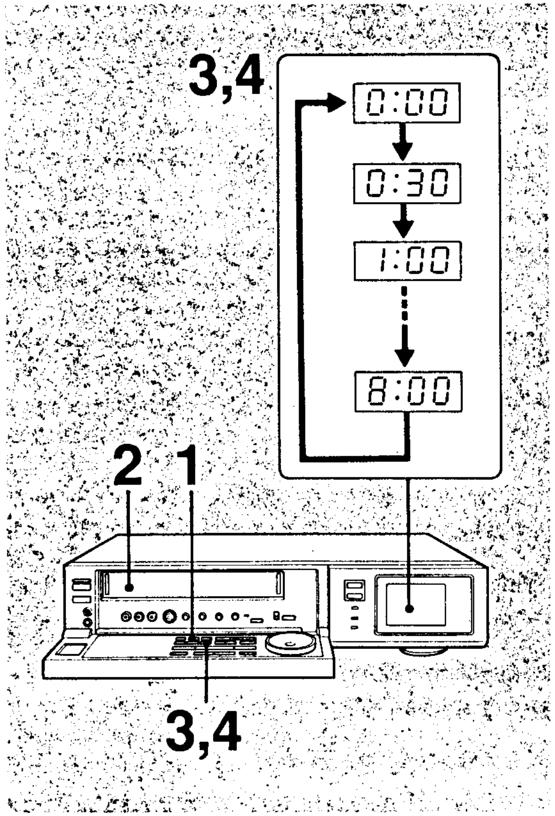
When the VPS timer recording is set for a programme which is expected to start between 4:00 and 23:59, the VTR will enter the standby mode at 0:00 that day and will keep on waiting for the VPS signal until 4:00 of the next day.

When the VPS timer recording is set for a programme which is expected to start between 0:00 and 3:59, the VTR will enter the standby mode at 20:00 the day before the recording day and will keep on waiting for the VPS signal until 4:00 on the next day.

■ If the actual recording time overlaps with the next timer recording programme

There may be cases when the actual broadcast time of two timer recording programmes overlap owing to the shift made by the VPS signal. In this case, the programme that was broadcast first always has priority. The recording of the second programme will begin only after the first programme is over.

Quick Timer Recording



What is Quick Timer Recording?

The quick timer recording function provides a short cut to enter the timer recording mode or to use the timer to turn off the VTR after recording is over.
The timer can be set to operate within 8 hours in units of 30 minutes.

Operation

If you are recording, skip steps 1 to 3.

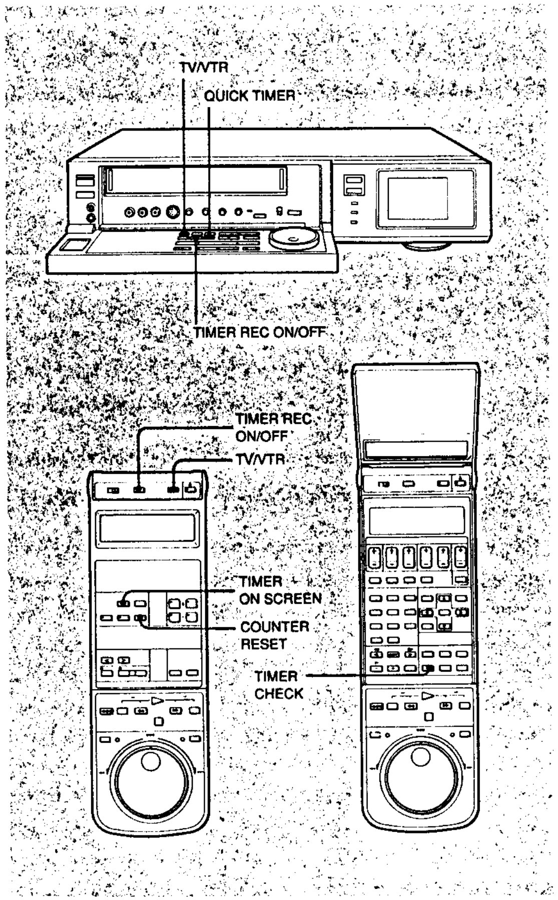
1 **Press INPUT SELECT so that TUNER indicator is turned on.**

2 **Insert a cassette.**

3 **Press QUICK TIMER.**
The TIMER indicator lights in the display window. While 0:00 and programme position number is blinking in the display window, select the desired programme number with PROGRAM +/–.
A cassette with its safety tab removed will be ejected.

4 **Press QUICK TIMER again to start recording.**
Press QUICK TIMER again to set the recording duration within 30 seconds from step 3, otherwise the power will be turned off. Each press of QUICK TIMER changes the indication in the display window in units of 30 minutes.

5 **The recording duration will decrease minute by minute until 0:00 when the VTR is automatically turned off.**



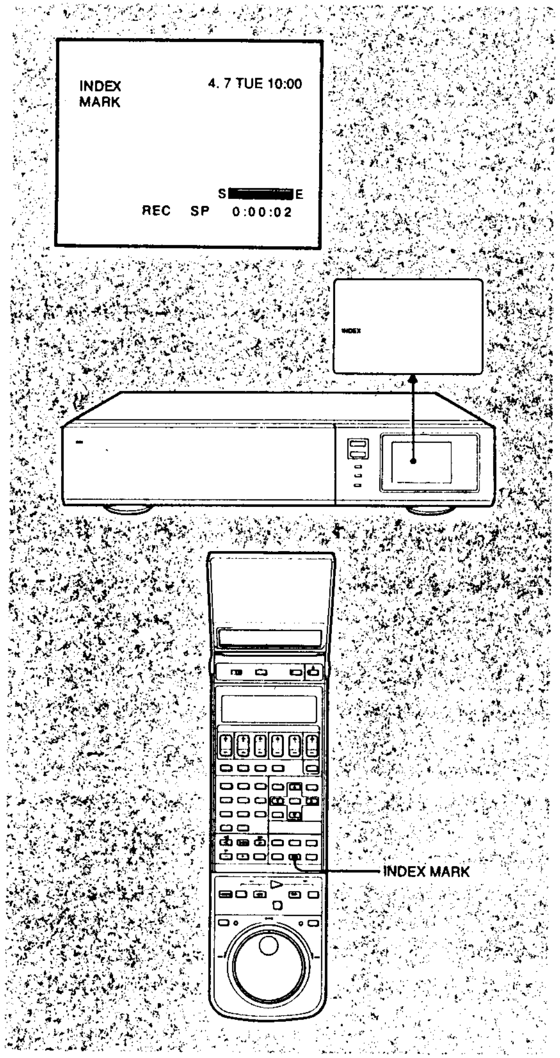
■ Buttons operable during quick timer recording

- **TIMER REC ON/OFF** stops quick timer recording.
- **QUICK TIMER** changes the recording duration.
- **TIMER ON SCREEN** displays the programme list.
- **TIMER CHECK** changes the programme number in the display window.
- **COUNTER RESET** resets the counter to zero.
- **TV/VTR** switches the screen to another programme received on the TV.

If power interruption occurs during quick timer recording
Recording will stop and the VTR will be turned off. If the power interruption lasted for less than three hours and if the power recovered within the quick timer duration, recording will resume from that instant.

If the VTR is in timer recording standby mode
Press TIMER REC ON/OFF to turn off the indicator, then follow steps 4 and 5.

Index Function



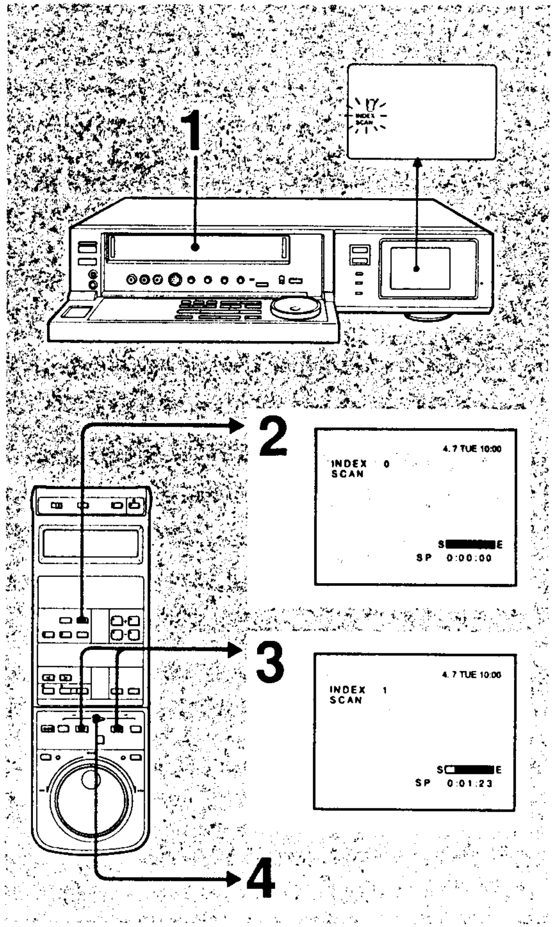
Marking Index Signals

The desired position on a tape can be located easily by detecting the index signals. There are two ways in which to mark index signals: automatic and manual. When the index signal is being marked, INDEX flashes in the display window and the INDEX MARK display will appear on the screen.

- **Automatic index mark**
  An index signal is automatically marked on the tape when the VTR starts recording.
- **Manual index mark**
  Index signals can be marked at desired scenes during recording or normal playback. Press INDEX MARK to mark an index.

Notes

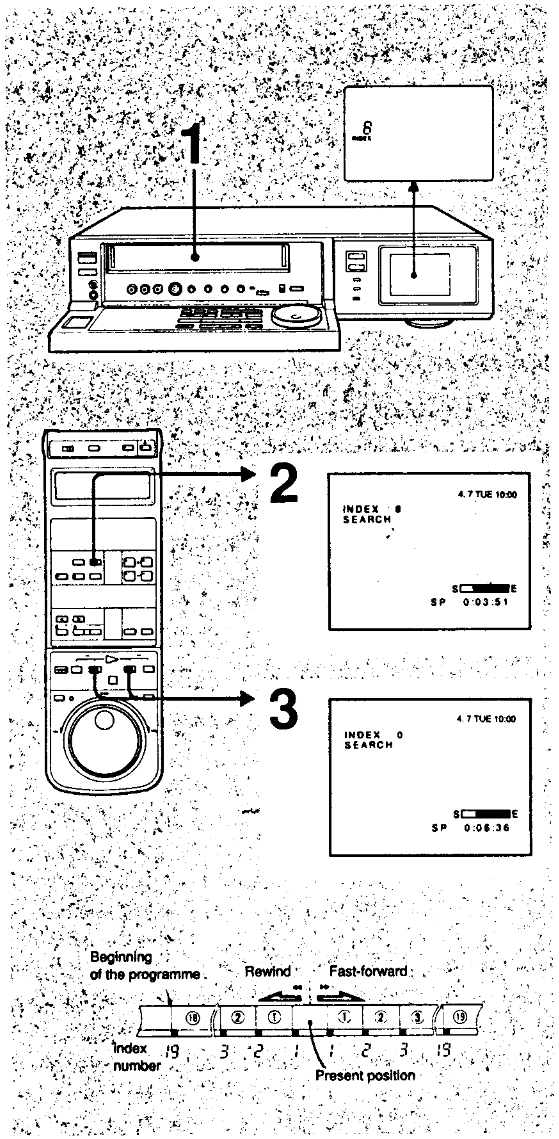
- Leave an interval of more than 2 minutes between two index points so that the VTR can detect each INDEX signal accurately.
- The recorded sound will not be heard while marking an index signal. But the audio signal will not be erased.
- Index signals cannot be marked
  - on a tape whose safety tab is removed
  - on an unrecorded portion of the tape.
  - immediately before a point on the tape where the tape speed (LP or SP) changes.



Playing Back from the Index Point — INDEX SCAN

1. **Insert a cassette with index signals marked.**
2. **Press INDEX once.**
   INDEX or SCAN indicator blinks alternately in the display window.
3. **Press ◀◀ to play back from the previous programme.**
   Press ▶▶ to play back from the programme ahead.
   The VTR will advance to the next or previous index signal. Then the VTR will play the tape for approximately 10 seconds, and then move to the next index in the selected direction. The index number changes one by one.
4. **Press ▶ when the desired index signal is detected.**

Index Function


1
2
3
INDEX 8
SEARCH
4.7 TUE 10:00
SP 0:03:51
INDEX 0
SEARCH
4.7 TUE 10:00
SP 0:08:36
Beginning of the programme
Rewind
Fast-forward
Index number
19
3
2
1
1
2
3
19
Present position

Locating an Index — INDEX SEARCH

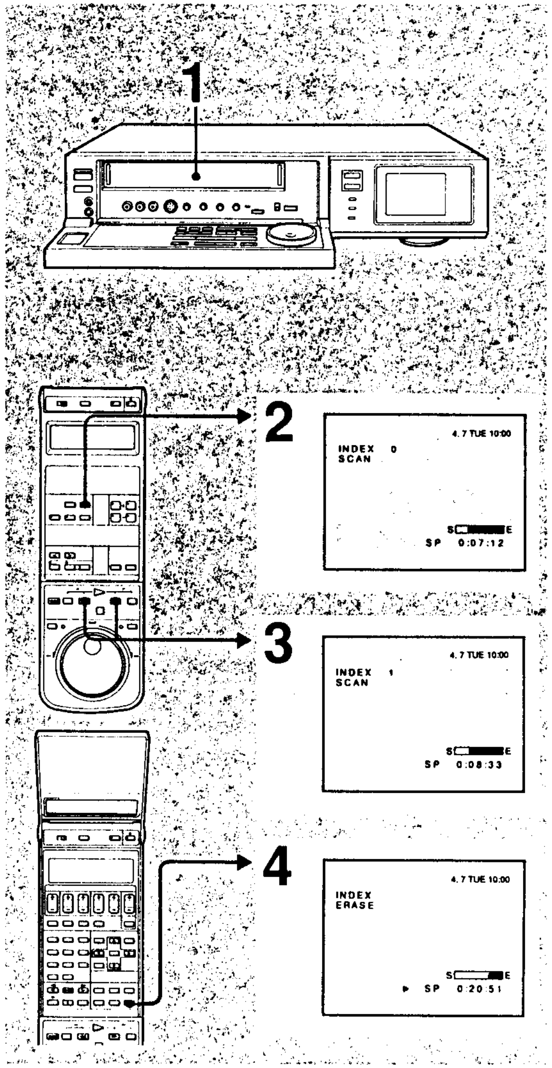
Direct search of the desired index point can be performed by entering the number of how many indexes ahead or behind it is from the current tape position. The VTR counts down how many more indexes should be searched for and displays the sequence in the display window. Up to 19 indexes from the preset position can be searched.

1 **Insert a cassette with index signals marked.**

2 **Press INDEX to show how many indexes should be counted to reach the desired scene.**

3 **Press ◀◀ if the index is behind or ▶▶ if the index is ahead of the current tape position.**
The VTR starts searching and the index number will be counted down to zero.

4 **Playback from the desired point starts.**


1
2
3
4
INDEX 0
SCAN
4.7 TUE 10:00
SP 0:07:12
INDEX 1
SCAN
4.7 TUE 10:00
SP 0:08:33
INDEX
ERASE
4.7 TUE 10:00
▶ SP 0:20:51

Erasing an Index

The index marked on the tape can be erased.

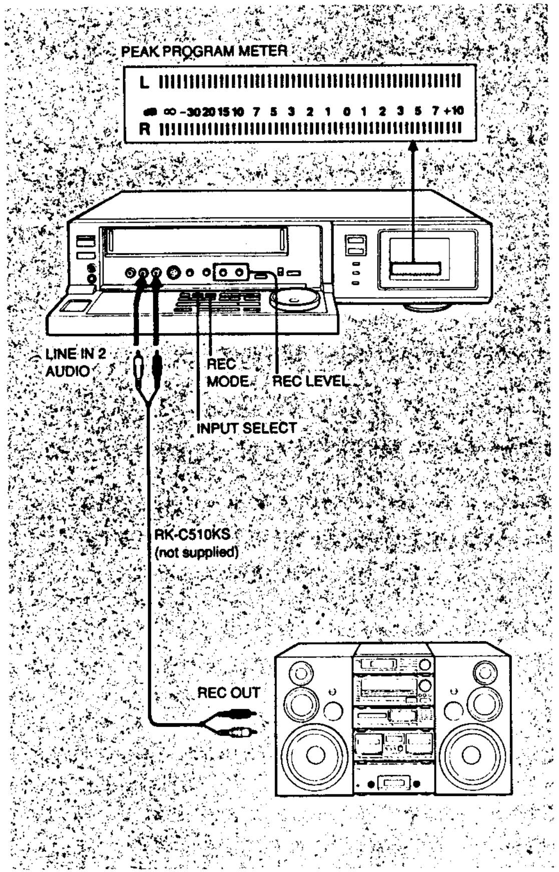
1 **Insert a cassette with index signals marked.**

2 **Press INDEX once.**

3 **Press ◀◀ or ▶▶ to search for the index signal.**
When the VTR detects an index signal, the VTR will play the tape for approximately 10 seconds from the index. If that is the index you want to erase, go to step 4. If that is not the index you want to erase, wait until the desired index is searched.

4 **Press INDEX ERASE while the VTR is in step 3.**
That index signal will be erased. While the index signal is being erased, the recorded sound will not be heard, but it will not be erased. After erasing, the VTR starts searching for an index signal again.

Audio Recording



The hi-fi recording system of this VTR allows recording of high quality stereo sound from an FM tuner, audio system, or other audio equipment.

Before You Begin

- Connect your audio system to the LINE IN 2 AUDIO jacks using the RK-C510KS audio connecting cable (not supplied).
- Set INPUT SELECT to LINE L2.
- Select REC MODE, SP or LP.

Adjusting the Audio Recording Level

Play the recording source. While observing the PEAK PROGRAM METER, adjust the REC LEVEL controls referring to the following guide.

When recording from a conventional record: The right-most element (+10) should light up sometimes.

When recording from a compact disc or PCM processor: The right-most element (+10) should light up only at the highest signal level.

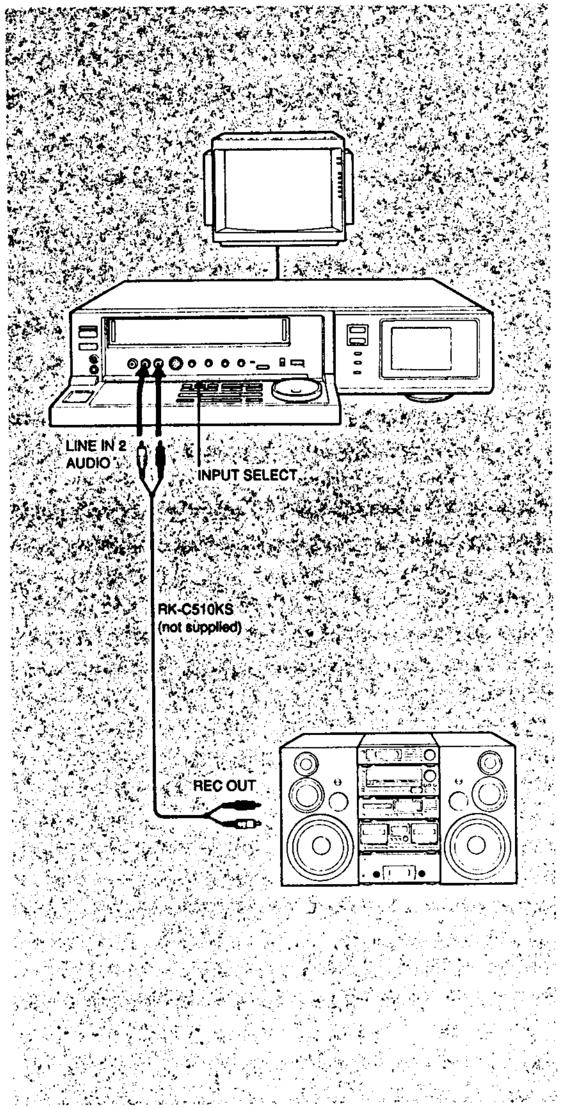
Recording

The recording procedure is the same as "Recording TV Programmes" on page 38.

PCM Recording and Playback

You can perform PCM recording and playback on the video track by connecting a PCM digital audio processor to the LINE IN and OUT VIDEO jacks on this VTR. For details, refer to the instruction manual of the PCM digital audio processor.

Caution
To avoid damaging the speakers due to a wide dynamic range of a hi-fi recorded tape/disc, turn down the volume of the TV before playing back a hi-fi recorded tape/disc.



Simulcast Recording

You can record TV programme and the sound from other equipment such as an FM tuner, simultaneously. The audio signals from the TV receiver are recorded on the normal audio track and those from the connected equipment on the video track.

■ Before you begin

- Connect your audio equipment to the EURO-AV (LINE 1) connector or the LINE IN 2 AUDIO jacks.
- The EURO-AV (LINE 3) connector cannot be used for a simulcast recording.
- Press INPUT SELECT on this VTR to indicate SIMUL in the display window.
- Other settings are the same as "Audio recording" on the previous page.

■ To set SIMUL AUDIO IN

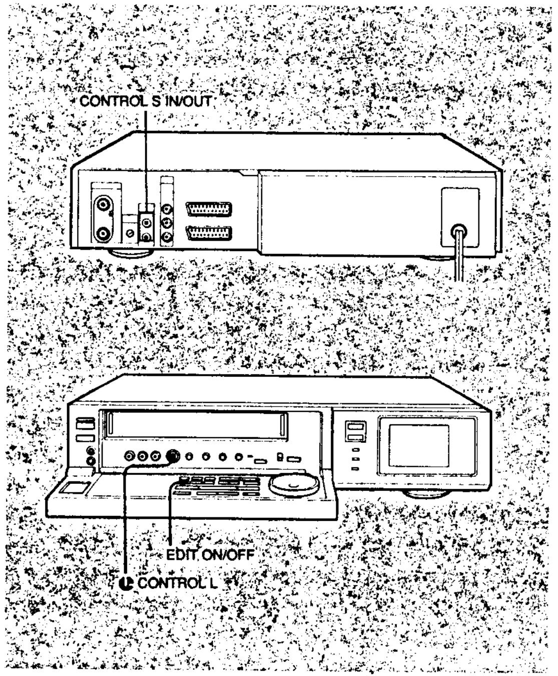
Select the audio input to which your audio equipment is connected.

1. **Press MENU.**
   The main MENU appears.
2. **Move cursor with ▲ or ▼ to MODE SET.**
3. **Press EXE.**
   If the MODE SET [PAGE 2] menu appears, move cursor with ▲ or ▼ to PREVIOUS PAGE and press EXE. The MODE SET [PAGE 1] menu appears.
4. **Move cursor with ▲ or ▼ to SIMUL AUDIO IN.**
5. **Move the dot with ◀ or ▶ to L1 or L2 to which your audio equipment is connected.**
6. **Press EXE to store the setting and return to the original screen.**

■ Operation

The recording procedure is the same as "Recording TV programmes" on page 38.

Tape Editing



Before You Begin

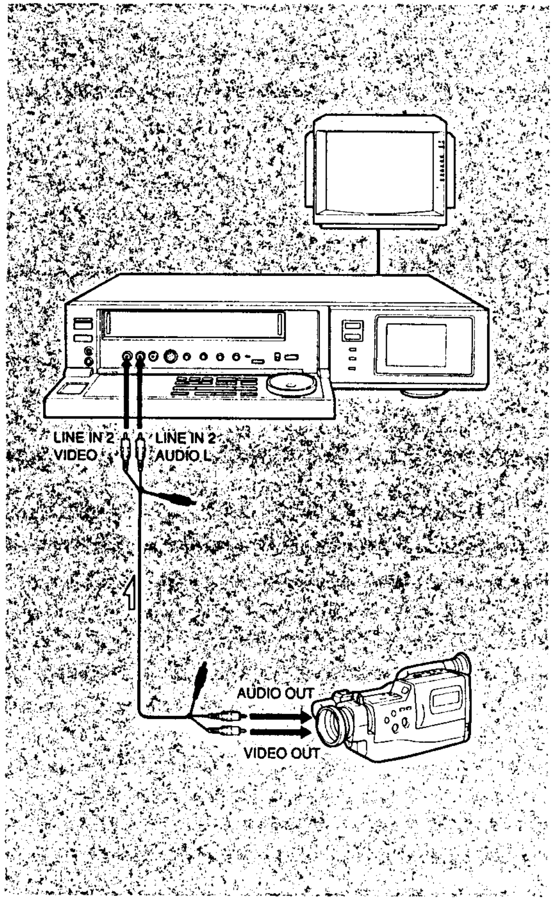
You can create your own video programme by editing with other VTRs. Take a look at the following examples to expand your pleasure in video operation.

Use of the Sony control terminals

If your second VTR is equipped with Sony control terminals, CONTROL L or CONTROL S output or input, synchronized editing can be performed. Synchronized editing enables remote control of this VTR's playback/recording start and pause by the other VTR.
See pages 69 through 74.

Use of the EDIT mode

The EDIT mode activated by the EDIT ON/OFF button on the VTR enables recording and playback of higher quality pictures during editing. If the other VTR is equipped with this function, turn it on. However, note that even when using the EDIT mode during editing, the quality of the edited tape will have a certain extent of degradation in picture and sound. Avoid using the edited tape for multiple generations of editing.



Editing from another VTR

Using this VTR as a recording VTR and an 8 mm video camera recorder as a playback VTR.

Before you begin

- Make connections using the supplied video/audio connecting cable as illustrated.
- If the other VTR is a monaural type as shown in the illustration, connect the white plug to LINE IN 2 AUDIO L and leave the red plugs unconnected. This enables the sound to be separated into the right and left channels. If the other VTR is a stereo type, make connections with both the red and white plugs.
- Press INPUT SELECT on this VTR to indicate LINE L1, LINE L2 or LINE L3 to match the jack to which you have connected the other VTR.
- Activate the EDIT mode on both VTRs.
- Select the recording tape speed, SP or LP.

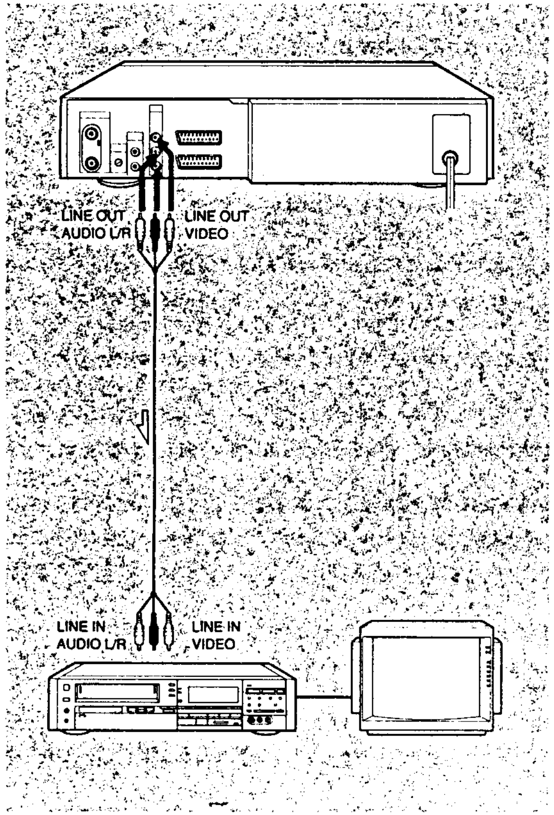
Operation

1 **Insert a source tape into the playback VTR. Insert a tape for recording into this VTR.**

2 **Play back on the playback VTR and record with this VTR.**

Note
The ⇢ mark indicates the signal flow.

Tape Editing


LINE OUT AUDIO L/R
LINE OUT VIDEO
LINE IN AUDIO L/R
LINE IN VIDEO

Editing onto Another VTR

Using this VTR as a playback VTR and another VTR as a recording VTR.

■ Before You Begin

- Make connections using the supplied video/audio connecting cable as illustrated. If the other VTR is a monaural type, make connections with the VMC-910MS/920MS video/audio connecting cable (not supplied).
- Press AUDIO MONITOR on the Commander to select the sound to be recorded.
- Press DATA SCREEN on the Commander to erase the data screen.
- Activate the EDIT mode on both VTRs.
- Select the line input on the other VTR.

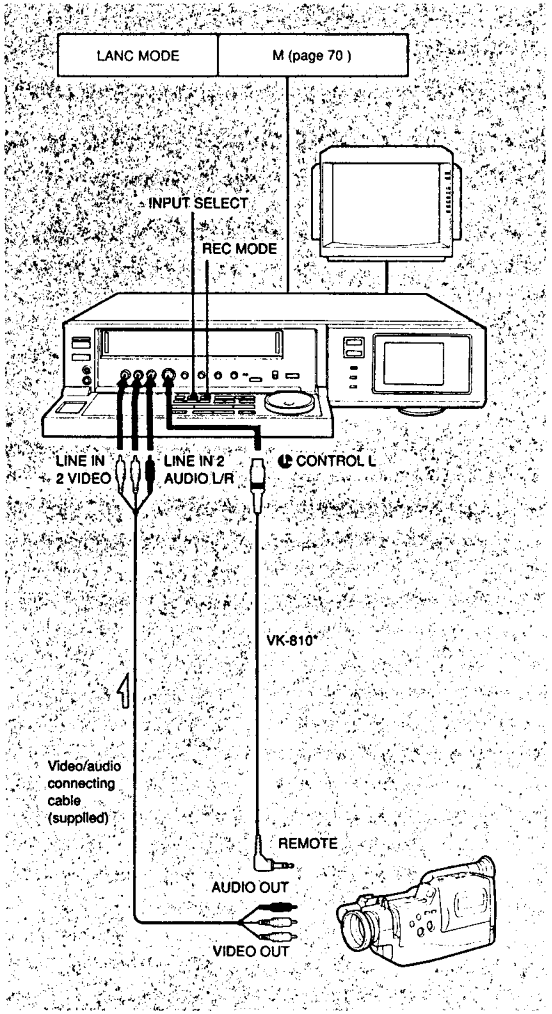
■ Operation

1 **Insert a source tape into this VTR. Insert a tape for recording into the recording VTR.**

2 **Play back on this VTR and record with the recording VTR.**

Note
Do not connect the same VTR to both the LINE IN and LINE OUT jacks of this VTR. This may cause hum noise.

Synchronized Editing — Editing with a VTR Equipped with a Sony Control Terminal


LANC MODE
M (page 70)
INPUT SELECT
REC MODE
LINE IN 2 VIDEO
LINE IN 2 AUDIO L/R
CONTROL L
VK-810*
Video/audio connecting cable (supplied)
REMOTE
AUDIO OUT
VIDEO OUT

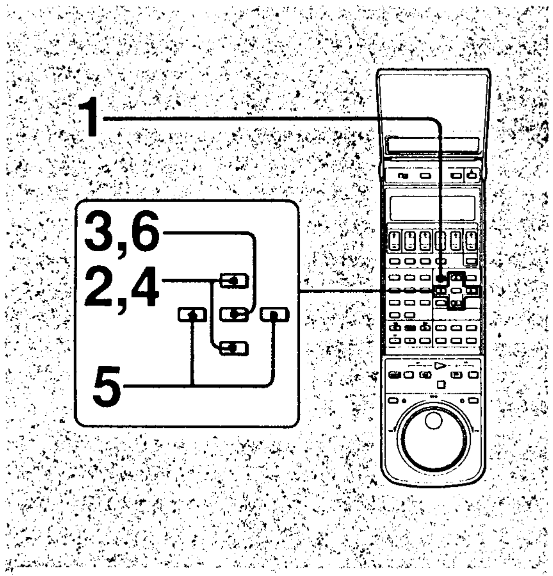
Connecting a VTR Equipped with a CONTROL L Connector

Using this VTR as a recording VTR and another VTR as a playback VTR.

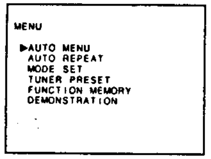
- When the REMOTE connector of the other VTR is a stereo mini-mini plug, use the VK-810 connecting cable (not supplied).
  If it is a 5-pin DIN connector, use the VK-800 connecting cable (not supplied) instead of VK-810.
- If the other VTR is monaural, connect the white plug to LINE IN 2 AUDIO L and leave the red plugs unconnected. This enables the sound to be separated into the right and left channels. Connect nothing to LINE IN 2 AUDIO R.

Notes
- The cable with an* (asterisk) is not supplied.
- The ← mark indicates the signal flow.

Synchronized Editing — Editing with a VTR Equipped with a Sony Control Terminal



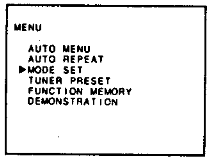
1



```
MENU

▶AUTO MENU
 AUTO REPEAT
 MODE SET
 TUNER PRESET
 FUNCTION MEMORY
 DEMONSTRATION
```

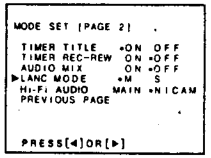
2



```
MENU

 AUTO MENU
 AUTO REPEAT
▶MODE SET
 TUNER PRESET
 FUNCTION MEMORY
 DEMONSTRATION
```

3,4,5

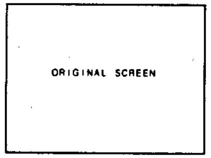


```
MODE SET [PAGE 2]

 TIMER TITLE    •ON  OFF
 TIMER REC-REW   ON •OFF
 AUDIO MIX       ON •OFF
▶LANC MODE      •M   S
 Hi-Fi AUDIO   MAIN •NICAM
 PREVIOUS PAGE


 PRESS[◀]OR[▶]
```

6



```
ORIGINAL SCREEN
```

*Hi-Fi AUDIO for SLV-715UB only

■ To set LANC MODE

When the other VTR is connected via the 🄻 CONTROL L connector, you may select the LANC MODE which determines if this VTR controls the other VTR via the CONTROL L connector or it is controlled by the other VTR. This is LANC MODE.
To perform synchronized editing using the SYNCHRO EDIT button on this VTR, select LANC MODE M as follows:

1 **Press MENU.**
The main MENU appears.

2 **Move cursor with ▼ or ▲ to MODE SET.**

3 **Press EXE.**
If the MODE SET [PAGE 1] menu appears, move cursor with ▲ or ▼ to NEXT PAGE and press EXE.
The MODE SET [PAGE 2] menu appears.

4 **Move cursor with ▼ or ▲ to LANC MODE.**

5 **Move the dot with ◀ to M when you control the other VTR through this VTR, and to S when you control this VTR through the other VTR.**

6 **Press EXE to store the setting and return to the original screen.**

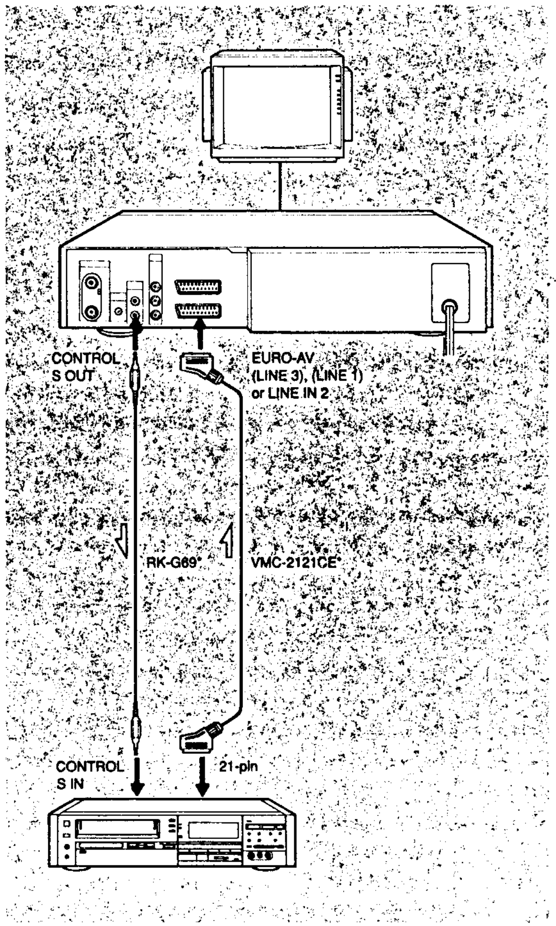
■ Operation

See "Synchronized Editing from Another VTR" on page 73.

Using a Sony editing controller RM-E300
You can perform automatic assemble editing of up to 8 programmes. Select the LANC MODE S in the MODE SET [PAGE 2] menu.

About the LANC
LANC stands for Local Application Control Bus System. The LANC connector is used for controlling the tape transport of video equipment and peripherals connected to it. This connector has the same function as the connectors indicated as CONTROL L or REMOTE.

Synchronized Editing — Connection



Connecting a VTR Equipped with a CONTROL S Input Jack

Using this VTR as a recording VTR and another VTR as a playback VTR.

- When connecting the other VTR to LINE IN 2 on the front, use the supplied video /audio connecting cable. If the other VTR is monaural, connect to LINE IN 2 AUDIO L via the white plugs. This enables the sound to be separated into the right and left channels. Leave the red plugs unconnected.

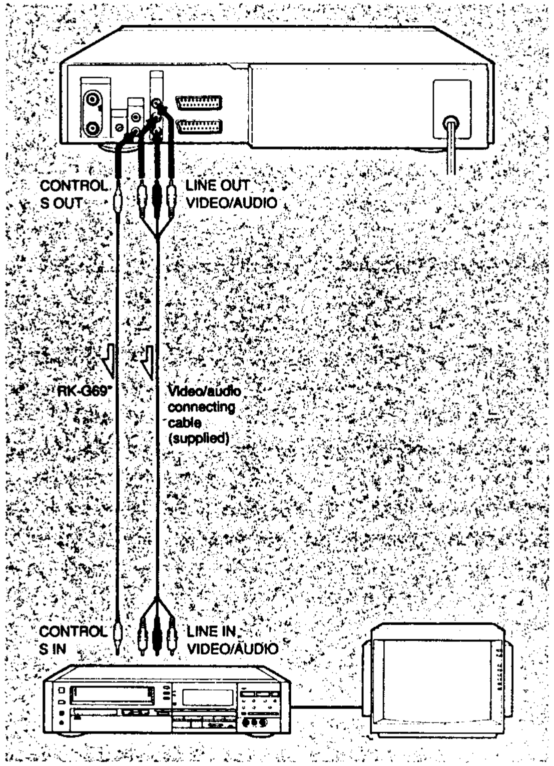
Notes
- The cables with an * (asterisk) are not supplied.
- The ⇨ mark indicates the signal flow.

■ Operation

See "Synchronized Editing from Another VTR" on page 73.

When a new scene is inserted onto the recorded tape
See "Insert Editing" on page 76.
The edited picture will be distorted at the editing end point.

Synchronized Editing — Connection



Connecting a VTR Equipped with a CONTROL S Input Jack

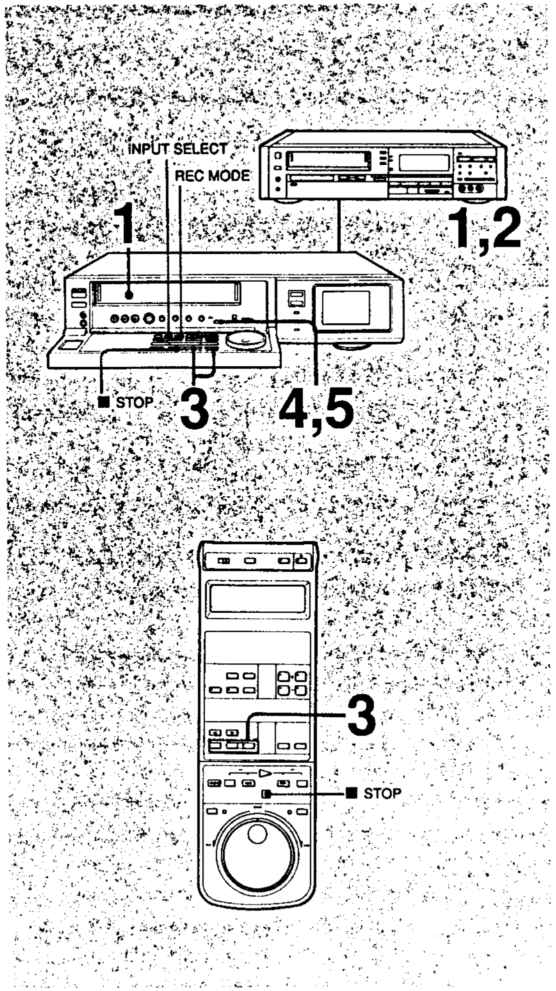
Using this VTR as a playback VTR and another VTR as a recording VTR.

- If the other VTR is monaural, connect the VTR using the VMC-910MS/920MS video/audio connecting cable (not supplied).
- You can also connect the other VTR to EURO-AV (LINE 1) using the VMC-2121CE cable (not supplied).

■ Operation

See "Synchronized Editing onto Another VTR" on page 74.

Synchronized Editing — Operation



Synchronized Editing From Another VTR

Using this VTR as a recording VTR and another VTR as a playback VTR.

■ Before You Begin

- Press INPUT SELECT to indicate LINE L1, LINE L2 or LINE L3 to match the jacks to which you have connected the other VTR.
- Press REC MODE to select the recording tape speed, SP or LP.

■ Operation

1 **Insert a source tape into the playback VTR. Insert a tape for recording into this VTR.**

2 **On the playback VTR, locate the point where you wish to start editing and set the VTR to the playback pause mode.**
If the VTR is equipped with the EDIT switch, set it to ON.

3 **On this VTR, locate the recording starting point and set the VTR to the recording pause mode.**

4 **Press SYNCHRO EDIT.**
Playback and recording will start on each VTR. The EDIT mode will be activated automatically.

5 **To stop editing, press SYNCHRO EDIT.**

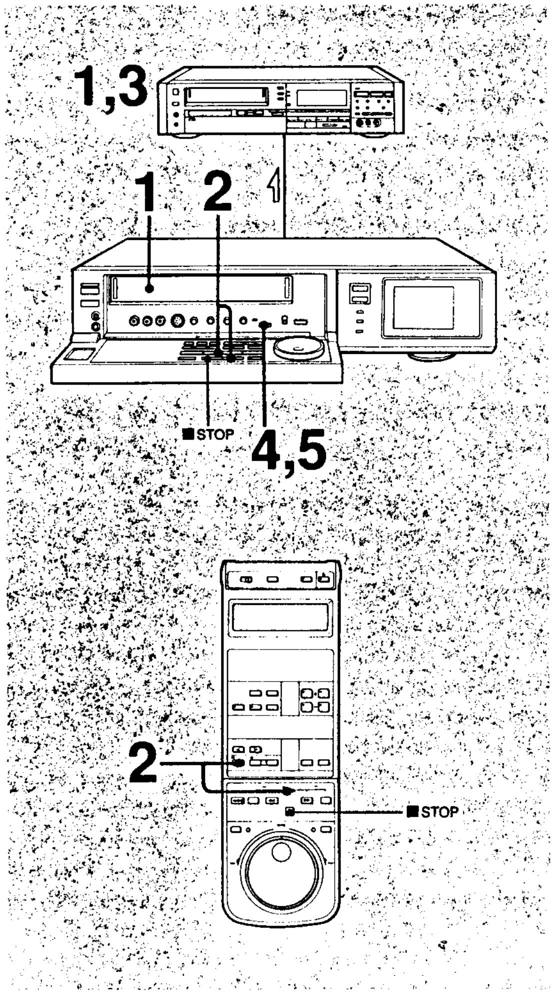
6 **To edit more scenes, repeat steps 2, 4 and 5.**

After editing, press ■ STOP on both VTRs.

Notes

- For considering of the rise time of the player, the recording will start approximately 1 second after the playback pause mode is released.
- When this VTR is used as the recording VTR and the SYNCHRO EDIT indicator lights, if the variable speed picture, such as the slow speed or double speed picture is played back on the playback VTR, the variable speed picture will be recorded.

Synchronized Editing — Operation



Synchronized Editing onto Another VTR

Using this VTR as a playback VTR and another VTR as a recording VTR.

■ Operation

1 **Insert a source tape into this VTR. Insert a tape for recording into the recording VTR.**

2 **On this VTR, locate the point where you wish to start editing and set the VTR to the playback pause mode.**

3 **On the recording VTR, locate the recording starting point and set the VTR to the recording pause mode.**

4 **Press SYNCHRO EDIT.**
After a tape is rewound a little, playback will start on this VTR. The recording will start at the assigned recording starting point.
The EDIT mode will be activated automatically.

5 **To stop editing, press SYNCHRO EDIT.**

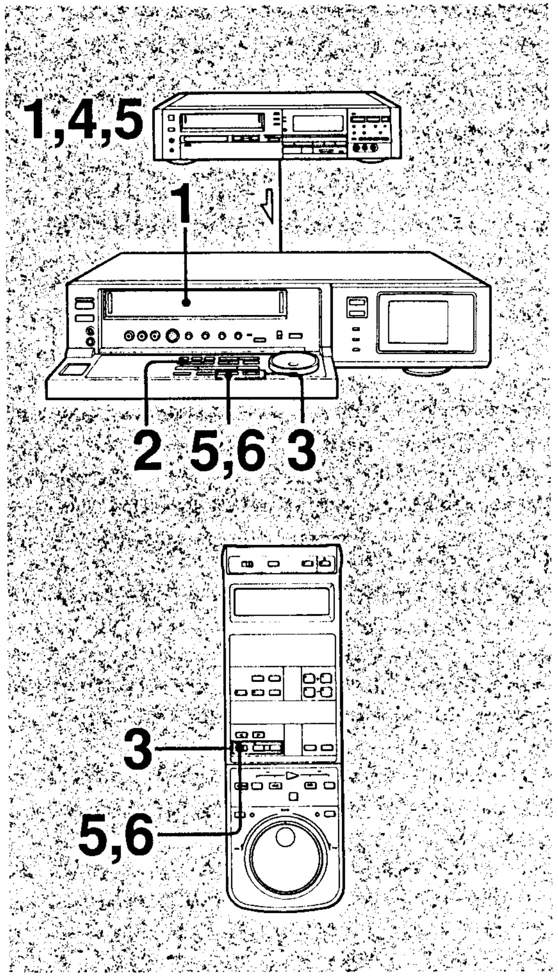
6 **To edit more scenes, repeat steps 2, 4 and 5.**

After editing, press ■ STOP on both VTRs.

When using the synchronized editing function of another Sony VTR
When the VTRs are connected via the CONTROL S jacks, set COMMAND MODE of this VTR to VTR 1 or VTR 2. With VTR 3 setting, this VTR may not be operated.

Note
Do not operate the buttons on the VTRs or Commander during editing. Doing so may cause a malfunction.

Manual Editing — Editing with a VTR not Equipped with a Sony Control Terminal



Using this VTR as a recording VTR and another VTR as a playback VTR.

For connections, see page 69 or 71. The CONTROL L or CONTROL S connection is not necessary.

■ Before You Begin

- Press INPUT SELECT to indicate LINE L1, LINE L2 or LINE L3 to match the jacks to which you have connected the other VTR.
- Press REC MODE to select the recording tape speed, SP or LP.

■ Operation

1 **Insert a source tape into the playback VTR. Insert a tape for recording into this VTR.**

2 **Press EDIT to light the EDIT indicator in the display window.**

3 **On this VTR, locate the recording starting point and set the VTR to the recording pause mode.**

4 **On the playback VTR, locate the point where you wish to start editing and set the VTR to the playback pause mode.**
If the VTR is equipped with the EDIT switch, set it to ON.

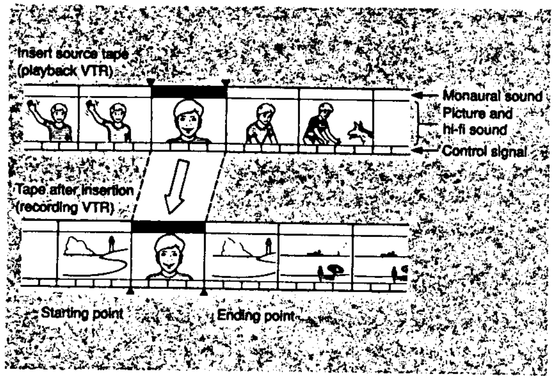
5 **Press II PAUSE of both VTRs simultaneously to start editing.**

6 **To stop editing, press II PAUSE of this VTR.**

7 **To edit more scenes, repeat steps 4 to 6.**

After editing, press ■ STOP on both VTRs.

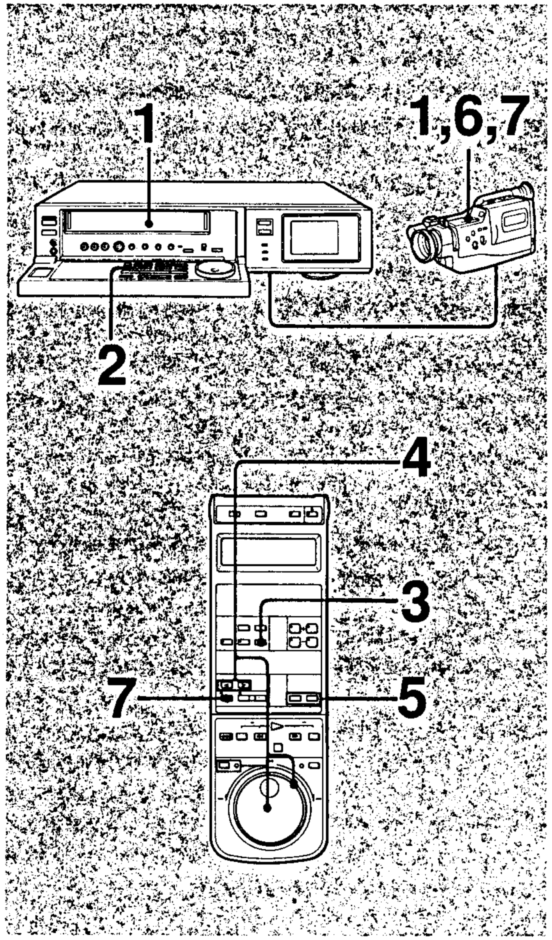
Insert Editing



You can easily insert a new picture and/or sound onto a pre-recorded tape. This editing is useful to replace an unnecessary scene (sound) with another scene (sound).

■ Before You Begin

- For connection, see page 69 or 71. (The CONTROL L or CONTROL S connection is not needed.)
- Select the insert source from the equipment connected to EURO-AV (LINE 1), LINE IN 2 and EURO-AV (LINE 3).



■ Operation

1 **Insert a source tape into the playback VTR. Insert a tape for recording into this VTR.**

2 **Press EDIT ON/OFF.**
If the playback VTR is equipped with the EDIT switch, set it to ON.

3 **On this VTR, locate the ending point and press COUNTER RESET.**
The counter will show "0H00M00S" and the ending point will be memorized.

4 **On this VTR, locate the starting point and set the VTR to the playback pause mode.**
JOG/SHUTTLE or SHUTTLE EDIT are useful for this operation.

5 **Press AUDIO/VIDEO INSERT.**
For audio insert, press AUDIO.
For video insert, press VIDEO.
For audio and video insert, press AUDIO and then VIDEO or vice versa.
The indicator corresponding to the button pressed will light.

6 **On the playback VTR, locate the starting point where you want to start the insertion and set the VTR to the playback pause mode.**

7 **Press ❚❚ PAUSE of both VTRs to start the insertion.**
At the ending point (0H00M00S), the insertion will stop automatically.

■ To stop the insertion temporarily

Press ❚❚ PAUSE.

■ To stop on-going insertion

Press ■ STOP.

Insert Editing

When the VIDEO INSERT button is pressed
The picture and the sound on the hi-fi audio track will be inserted. (The sound on the normal audio track will be retained.)

When the AUDIO INSERT button is pressed
The sound on the normal audio track will be inserted. (The picture and the sound on the hi-fi audio track will be retained.)

When the VIDEO and AUDIO INSERT buttons are pressed
The picture, sound on the hi-fi audio track and the sound on the normal audio track will be inserted.

Notes

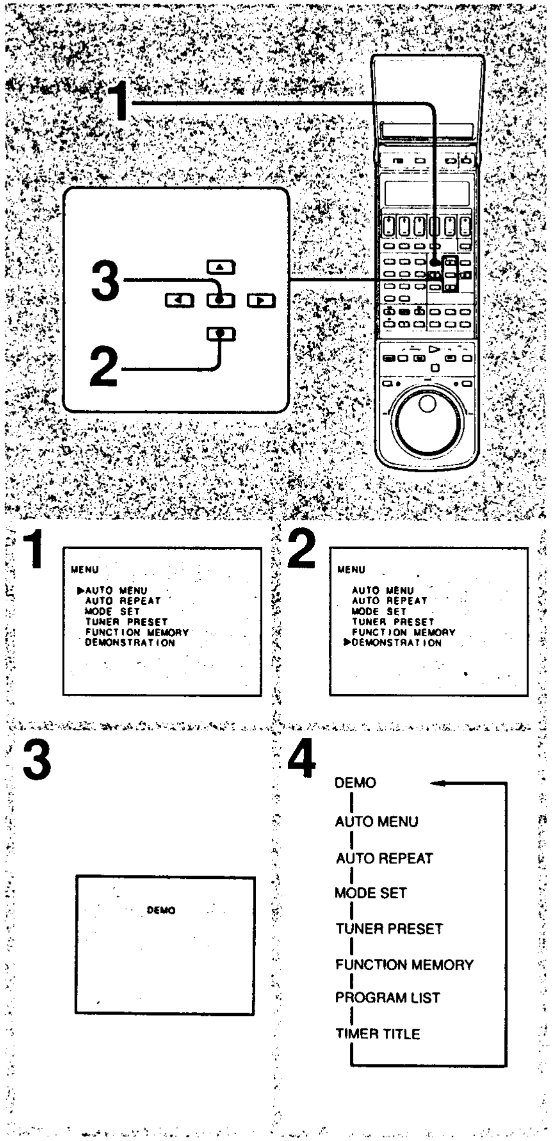
- The insertion cannot be made onto the unrecorded portion of a tape.
- After the insertion, the pre-recorded picture and/or sound will be erased.

■ When the sound from the microphone is inserted

When the microphone is connected to the MIC jack, the sound from the microphone is automatically selected and it is recorded on the normal audio track. When VIDEO INSERT is pressed, the sound from the microphone cannot be recorded.

Note
The MIC jack of this VTR is adaptable with the use of a monaural mini plug. If you connect a microphone with a stereo mini plug, use a plug adaptor such as the PC-236MS or the PC-236HMS.

The Menu System


1
3
2
1
MENU
▶AUTO MENU
AUTO REPEAT
MODE SET
TUNER PRESET
FUNCTION MEMORY
DEMONSTRATION
2
MENU
AUTO MENU
AUTO REPEAT
MODE SET
TUNER PRESET
FUNCTION MEMORY
▶DEMONSTRATION
3
DEMO
4
DEMO
AUTO MENU
AUTO REPEAT
MODE SET
TUNER PRESET
FUNCTION MEMORY
PROGRAM LIST
TIMER TITLE

Demonstration Menu

As you have noticed, many of the operations on this VTR are guided by the menu system. All of the menus are explained in sections where and when needed. However, to get an overview of the menu system, check the DEMONSTRATION menu which will give you a quick review of the MENU system.

■ Operation

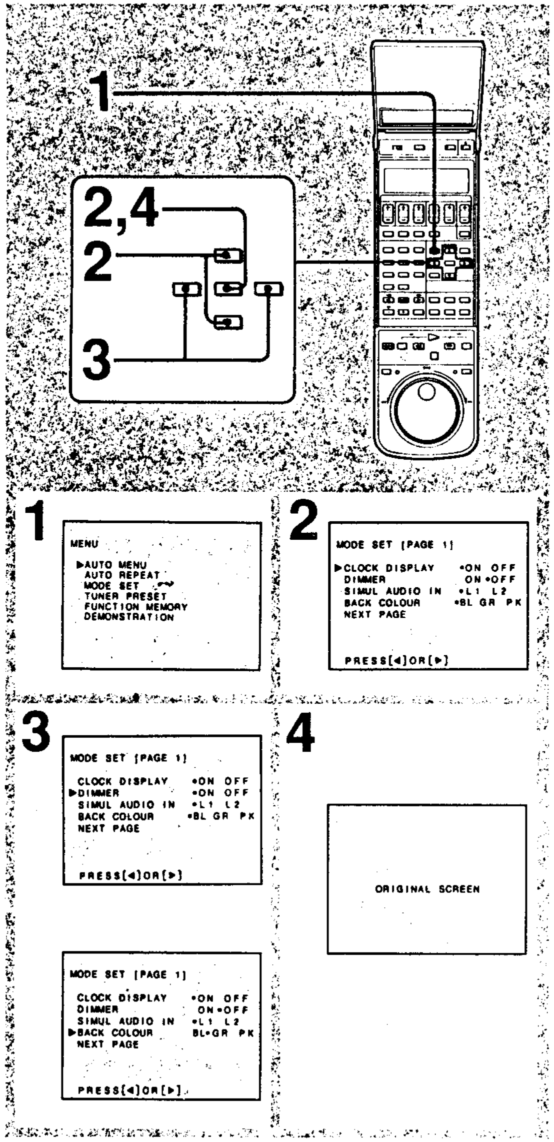
1 **Press MENU.**
The main MENU appears.

2 **Move cursor with ▲ or ▼ to DEMONSTRATION.**

3 **Press EXE.**

4 **The screen will change automatically as shown in the illustration.**
The DEMONSTRATION menu can be stopped at the desired screen by pressing EXE. Press EXE again to resume the DEMONSTRATION menu sequence. Press any button except for EXE to get out of the DEMONSTRATION mode.

The Menu System


1
2,4
2
3
1
MENU
▶AUTO MENU
AUTO REPEAT
MODE SET
TUNER PRESET
FUNCTION MEMORY
DEMONSTRATION
2
MODE SET [PAGE 1]
▶CLOCK DISPLAY •ON OFF
DIMMER ON •OFF
SIMUL AUDIO IN •L1 L2
BACK COLOUR •BL GR PK
NEXT PAGE
PRESS[◀]OR[▶]
3
MODE SET [PAGE 1]
CLOCK DISPLAY •ON OFF
▶DIMMER •ON OFF
SIMUL AUDIO IN •L1 L2
BACK COLOUR •BL GR PK
NEXT PAGE
PRESS[◀]OR[▶]
MODE SET [PAGE 1]
CLOCK DISPLAY •ON OFF
DIMMER ON •OFF
SIMUL AUDIO IN •L1 L2
▶BACK COLOUR BL•GR PK
NEXT PAGE
PRESS[◀]OR[▶]
4
ORIGINAL SCREEN

To Dim Out the Display Window

The indications in the display window can be dimmed out when the VTR is in the standby mode.

1 **Press MENU.**
The main MENU appears.

2 **Move cursor with ▲ or ▼ to MODE SET and press EXE.**
If the MODE SET [PAGE 2] menu appears, move cursor with ▲ or ▼ to PREVIOUS PAGE and press EXE.

3 **Move cursor to DIMMER and select ON with ◀ to dim the indication.**

4 **Press EXE to store the setting and return to the original screen.**

To Select the Background Colour on the Screen

You can change the background colour on the screen when no picture is displayed or the MENU display is shown on the screen.

1 **Press MENU.**
The main MENU appears.

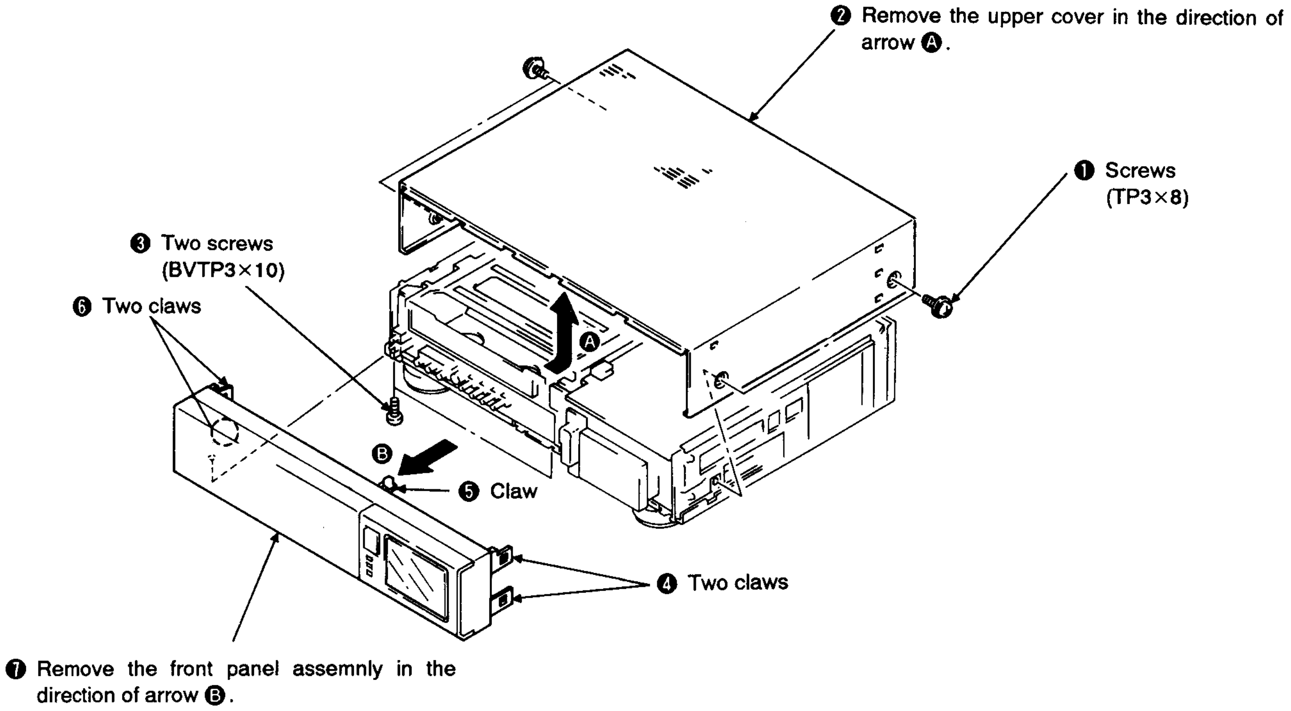
2 **Move cursor with ▲ or ▼ to MODE SET and press EXE.**
If the MODE SET [PAGE 2] menu appears, move cursor to PREVIOUS PAGE and press EXE.

3 **Move cursor to BACK COLOUR and select the desired colour with ◀ or ▶.**
BL.....blue
GR....green
PK.....pink

4 **Press EXE to store the setting and return to the original screen.**

SECTION 2
DISASSEMBLY

2-1. REMOVAL OF FRONT PANEL AND CABINET ASSEMBLIES



❶ Screws (TP3×8)

❷ Remove the upper cover in the direction of arrow Ⓐ.

❸ Two screws (BVTP3×10)

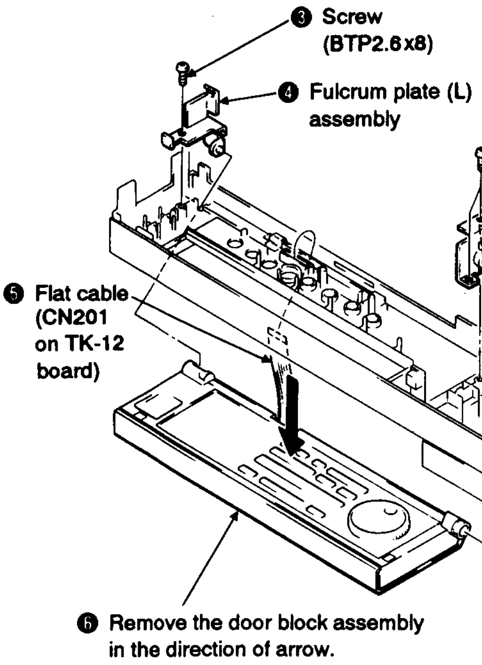
❹ Two claws

❺ Claw

❻ Two claws

❼ Remove the front panel assemnly in the direction of arrow Ⓑ.

2-2. REMOVAL OF DOOR BLOCK ASSEMBLY



❶ Two screws (BTP2.6×8)

❷ Fulcrum plate (R) block assembly

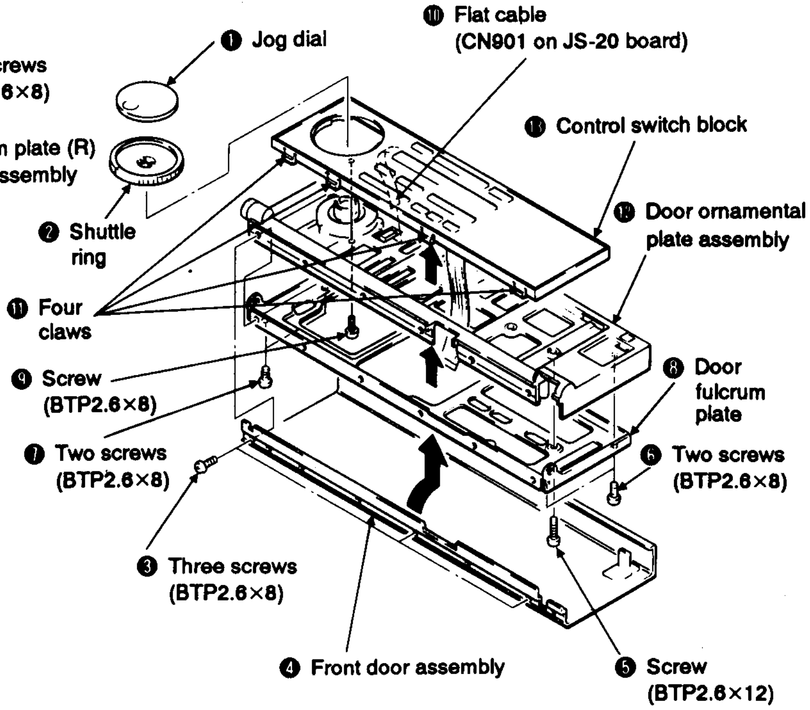
❸ Screw (BTP2.6x8)

❹ Fulcrum plate (L) assembly

❺ Flat cable (CN201 on TK-12 board)

❻ Remove the door block assembly in the direction of arrow.

2-3. REMOVAL OF CONTROL SWITCH BLOCK



❶ Jog dial

❷ Shuttle ring

❸ Three screws (BTP2.6×8)

❹ Front door assembly

❺ Screw (BTP2.6×12)

❻ Two screws (BTP2.6×8)

❼ Two screws (BTP2.6×8)

❽ Door fulcrum plate

❾ Screw (BTP2.6×8)

❿ Flat cable (CN901 on JS-20 board)

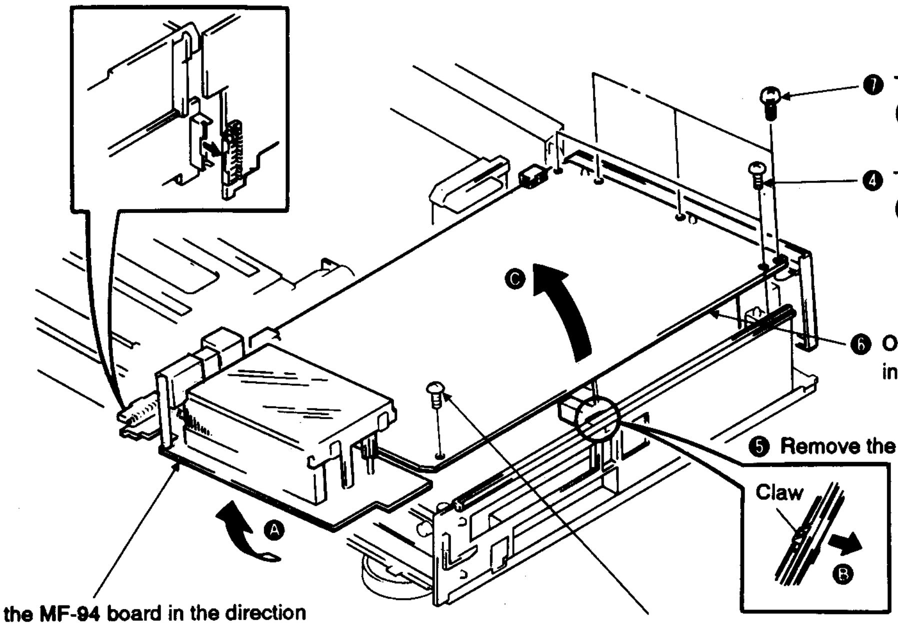
⓫ Four claws

⓬ Door ornamental plate assembly

⓭ Control switch block

2-4. OPENING OF MA-62 BOARD

① Remove the board to board connector.



② Open the MF-94 board in the direction of arrow Ⓐ.

③ Screw (BVTP3×10)

④ Two screws (BVTP3×10)

⑤ Remove the claw in the direction of arrowⒷ.

⑥ Open the MA-62 board in the direction of arrow Ⓒ.

⑦ Three screws (BVTP3×10)

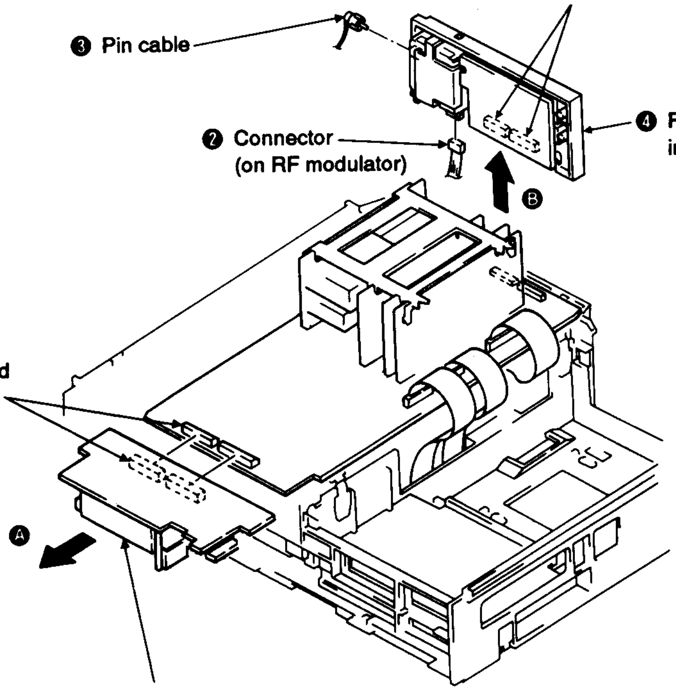
2-5. REMOVAL OF MF-94 BOARD AND TERMINAL BOARD BLOCK ASSEMBLY

Two board to board connectors

③ Pin cable

② Connector (on RF modulator)

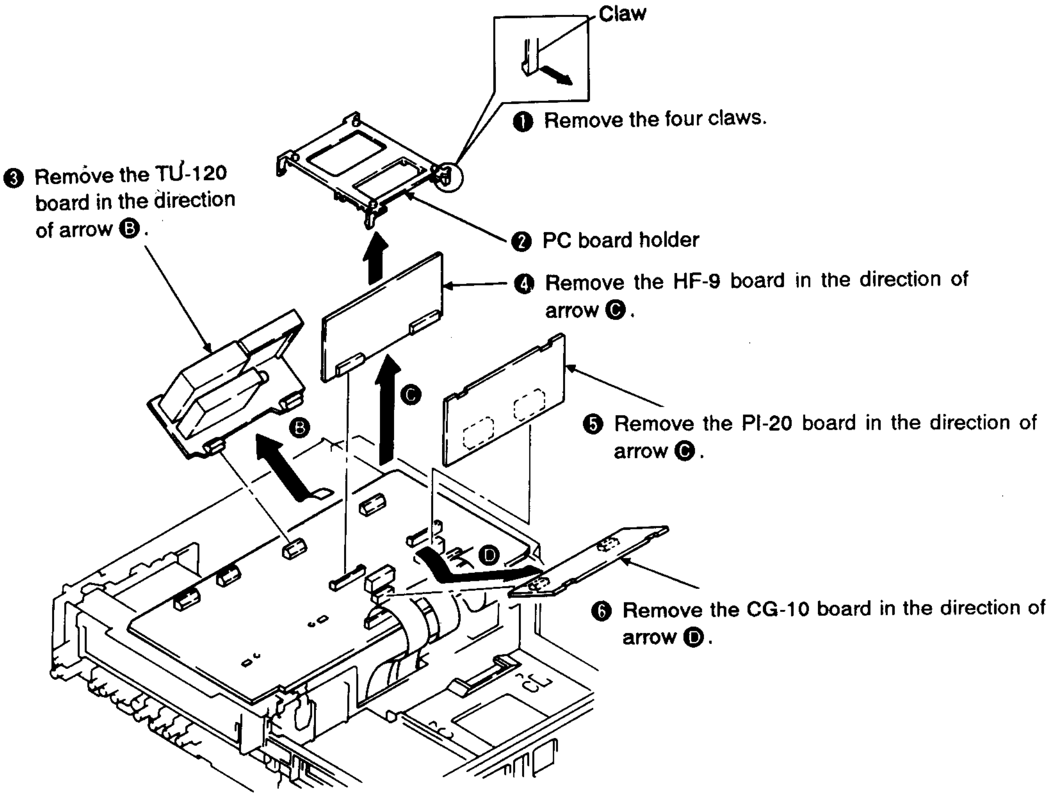
④ Remove the terminal board block assembly in the direction of arrow Ⓑ.



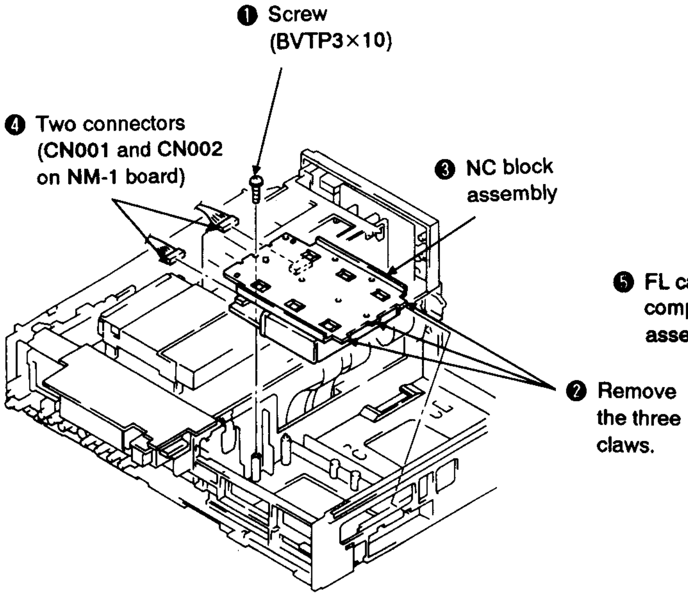
Two board to board connectors

① Remove the MF-94 board in the direction of arrow Ⓐ.

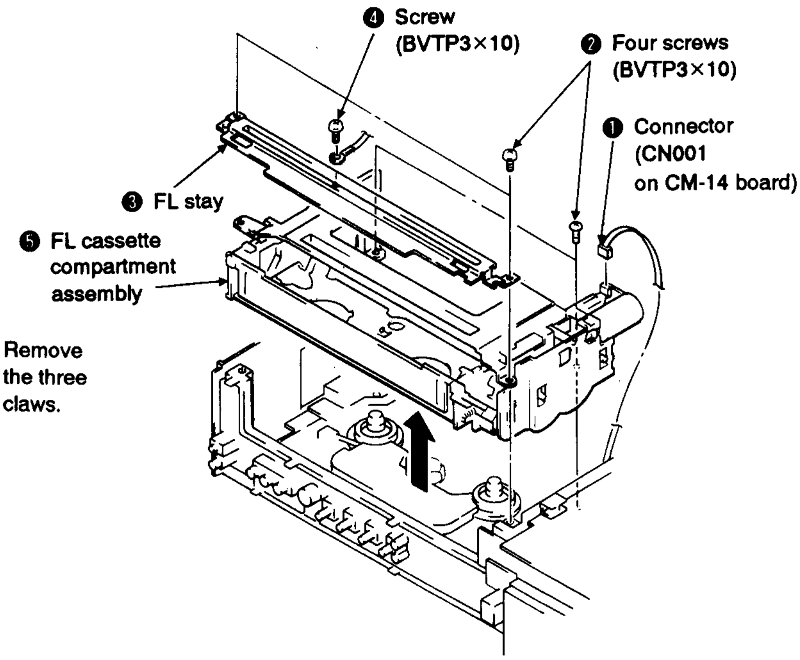
2-6. REMOVAL OF TU-120, HF-9, PI-20, CG-10 BOARDS AND DG BLOCK ASSEMBLY


Claw
① Remove the four claws.
③ Remove the TU-120 board in the direction of arrow Ⓑ.
② PC board holder
④ Remove the HF-9 board in the direction of arrow Ⓒ.
⑤ Remove the PI-20 board in the direction of arrow Ⓒ.
⑥ Remove the CG-10 board in the direction of arrow Ⓓ.
Ⓑ
Ⓒ
Ⓓ

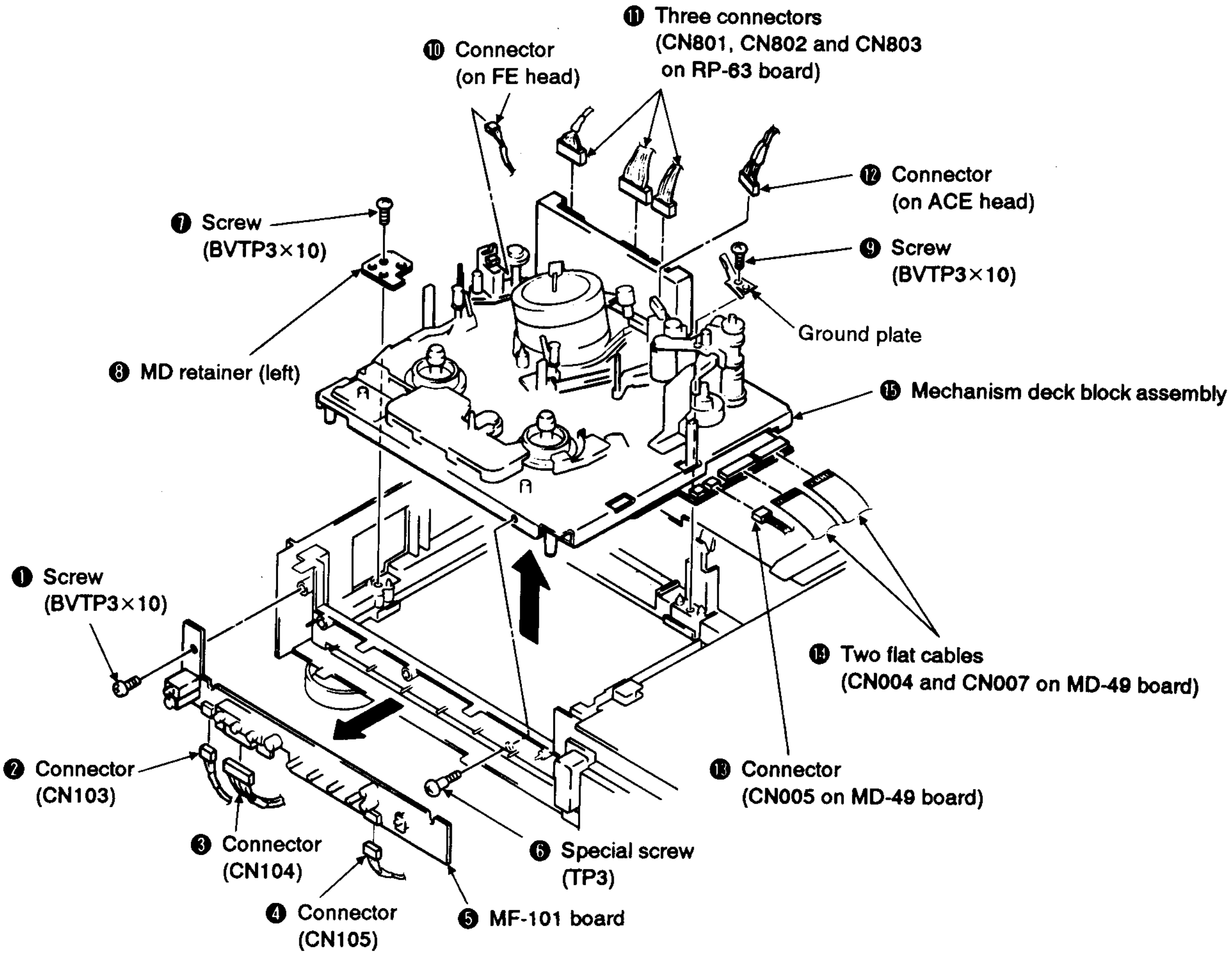
2-7. REMOVAL OF NC BLOCK ASSEMBLY (SLV-715UB ONLY)


① Screw (BVTP3×10)
④ Two connectors (CN001 and CN002 on NM-1 board)
③ NC block assembly
② Remove the three claws.

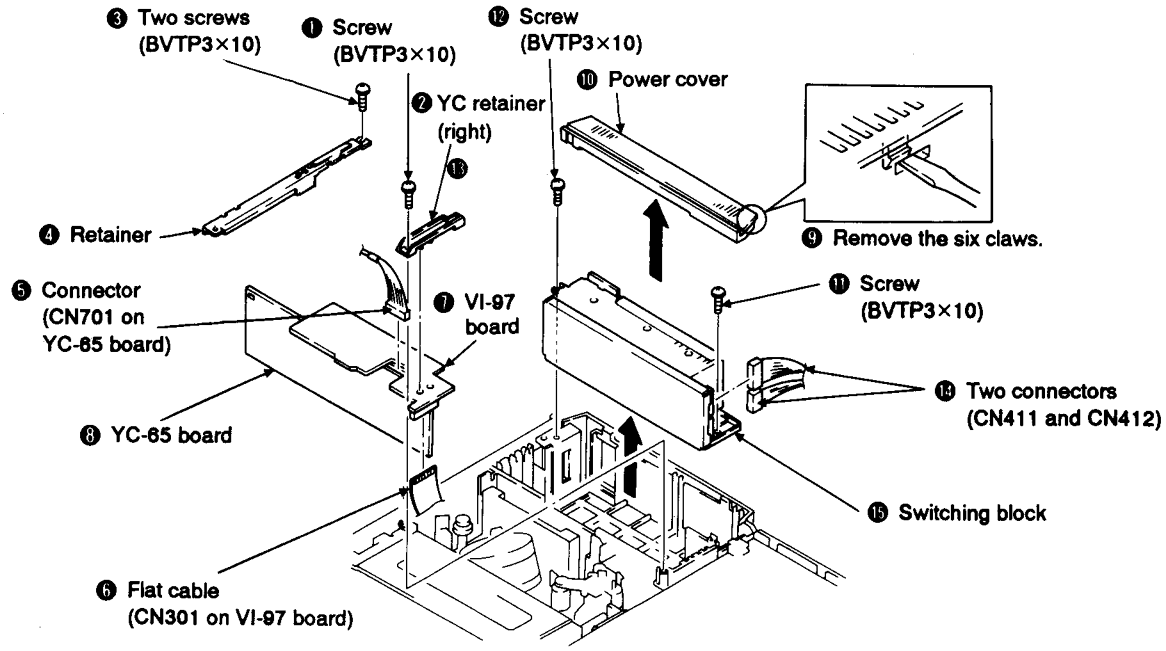
2-8. REMOVAL OF FL CASSETTE COMPARTMENT ASSEMBLY


④ Screw (BVTP3×10)
② Four screws (BVTP3×10)
① Connector (CN001 on CM-14 board)
③ FL stay
⑤ FL cassette compartment assembly

2-9. REMOVAL OF MF-101 BOARD AND MECHANISM DECK BLOCK ASSEMBLY

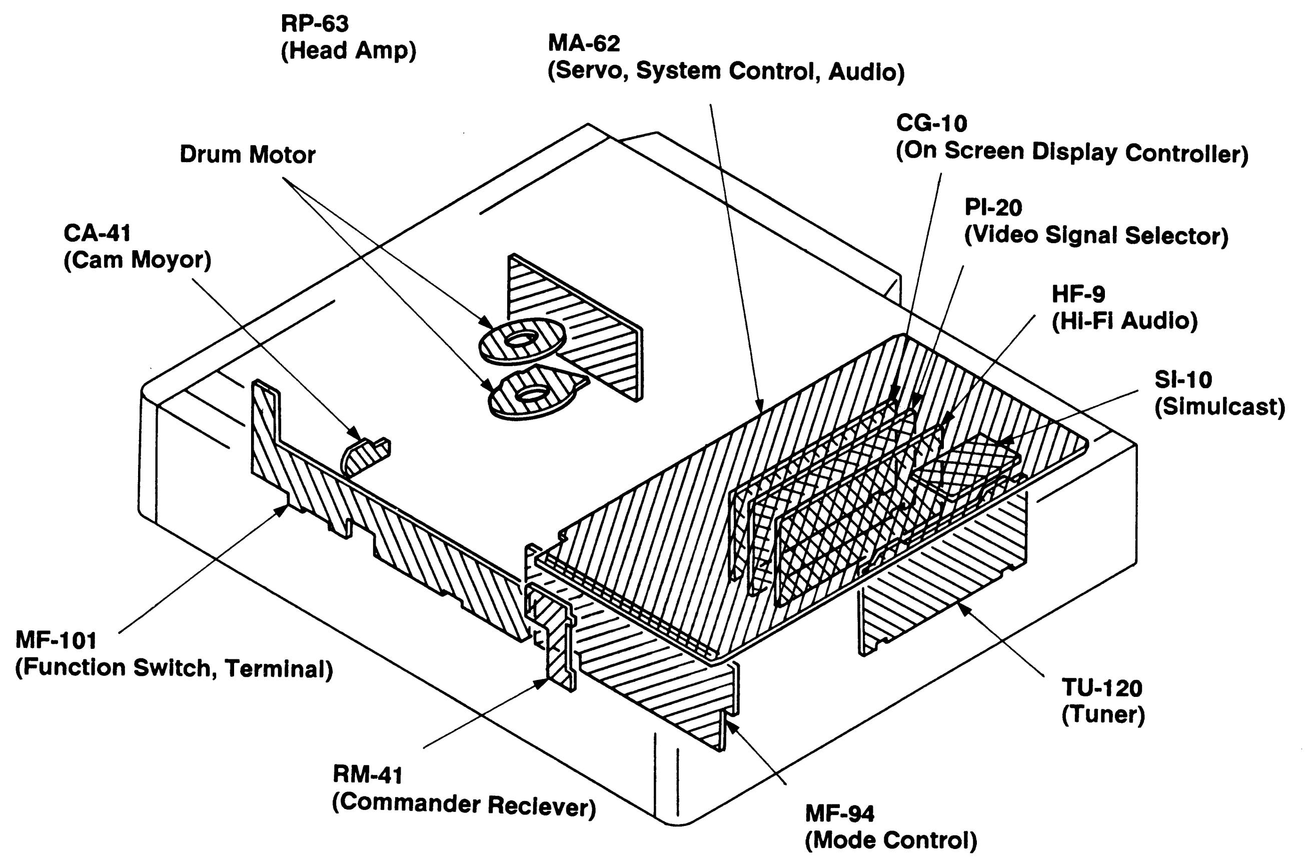

⑪ Three connectors (CN801, CN802 and CN803 on RP-63 board)
⑩ Connector (on FE head)
⑫ Connector (on ACE head)
⑦ Screw (BVTP3×10)
⑨ Screw (BVTP3×10)
Ground plate
⑧ MD retainer (left)
⑮ Mechanism deck block assembly
① Screw (BVTP3×10)
⑭ Two flat cables (CN004 and CN007 on MD-49 board)
② Connector (CN103)
⑬ Connector (CN005 on MD-49 board)
③ Connector (CN104)
⑥ Special screw (TP3)
④ Connector (CN105)
⑤ MF-101 board

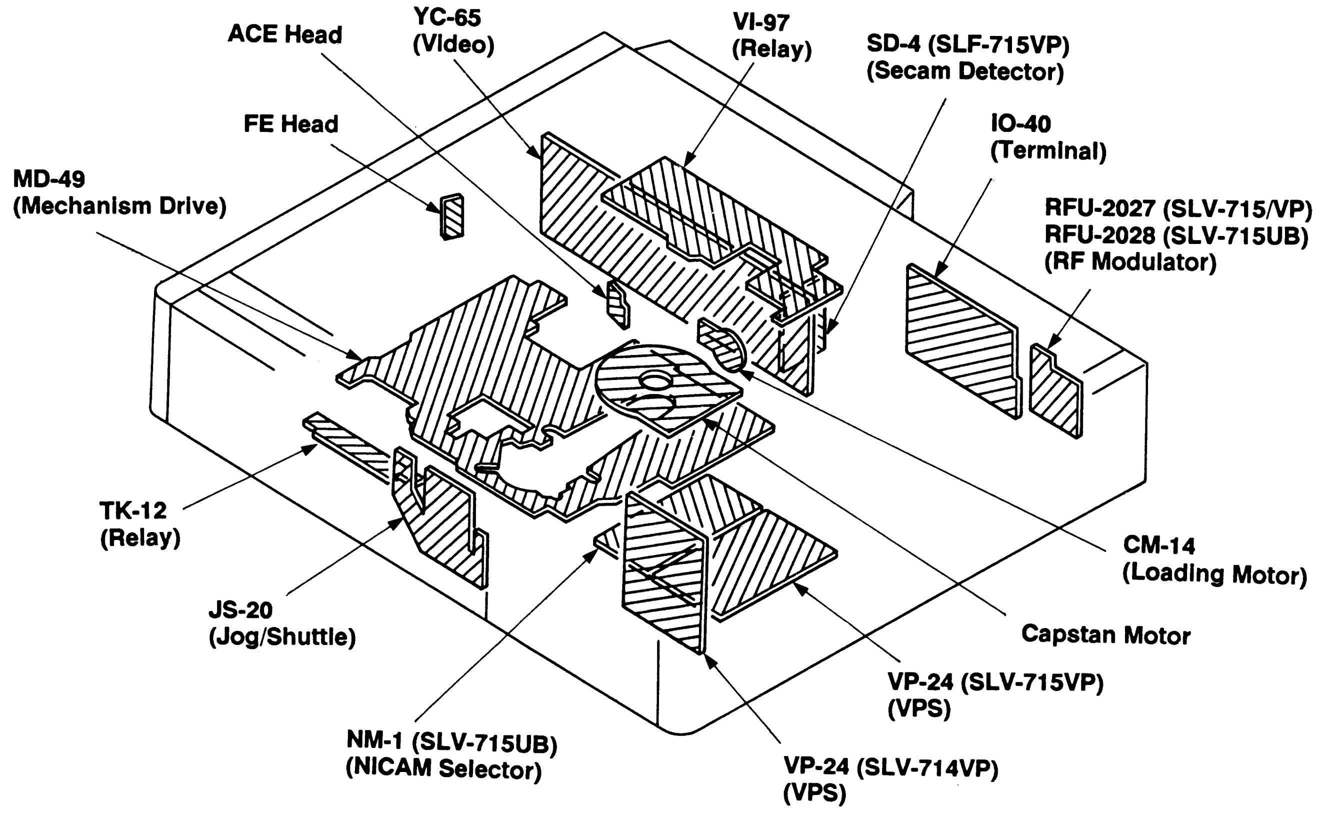
2-10. REMOVAL OF VI-97, YC-65 BOARDS AND SWITCHING BLOCK


③ Two screws (BVTP3×10)
① Screw (BVTP3×10)
⑫ Screw (BVTP3×10)
⑩ Power cover
② YC retainer (right)
⑬
④ Retainer
⑨ Remove the six claws.
⑤ Connector (CN701 on YC-65 board)
⑦ VI-97 board
⑪ Screw (BVTP3×10)
⑭ Two connectors (CN411 and CN412)
⑧ YC-65 board
⑮ Switching block
⑥ Flat cable (CN301 on VI-97 board)

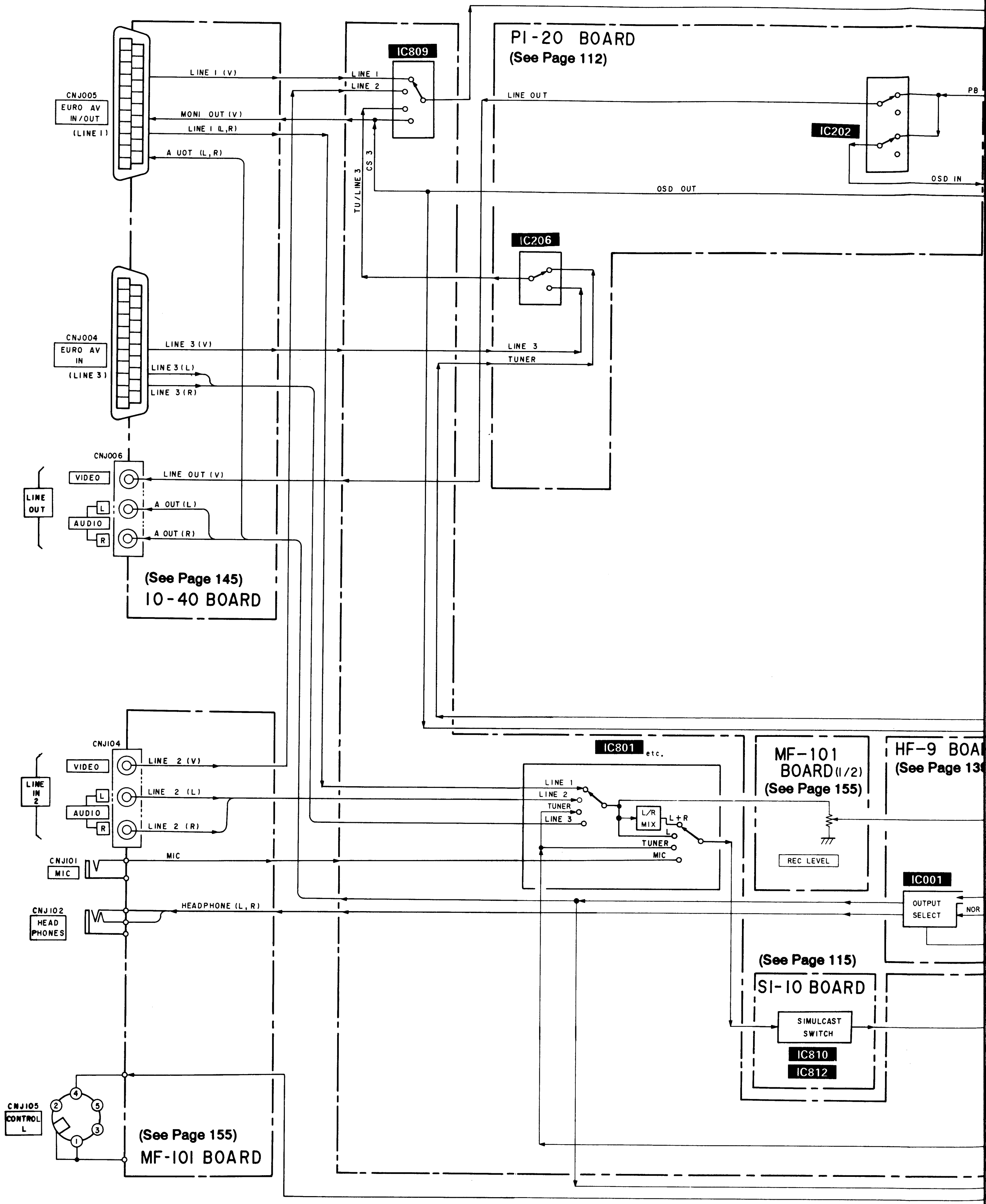
SECTION 3
DIAGRAMS

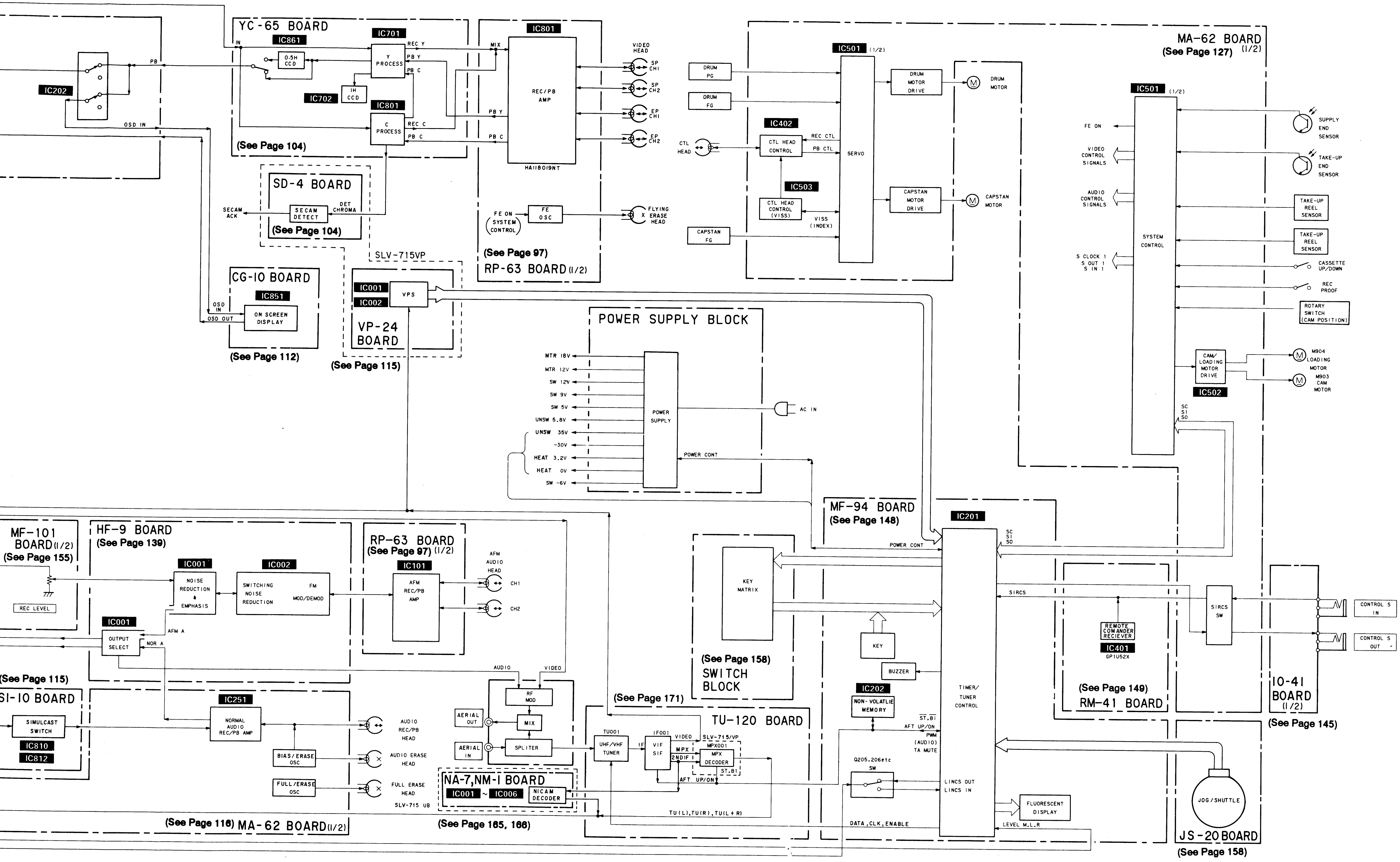
3-1. CIRCUIT BOARDS LOCATION


RP-63
(Head Amp)
MA-62
(Servo, System Control, Audio)
CG-10
(On Screen Display Controller)
Drum Motor
PI-20
(Video Signal Selector)
CA-41
(Cam Moyor)
HF-9
(Hi-Fi Audio)
SI-10
(Simulcast)
MF-101
(Function Switch, Terminal)
TU-120
(Tuner)
RM-41
(Commander Reciever)
MF-94
(Mode Control)

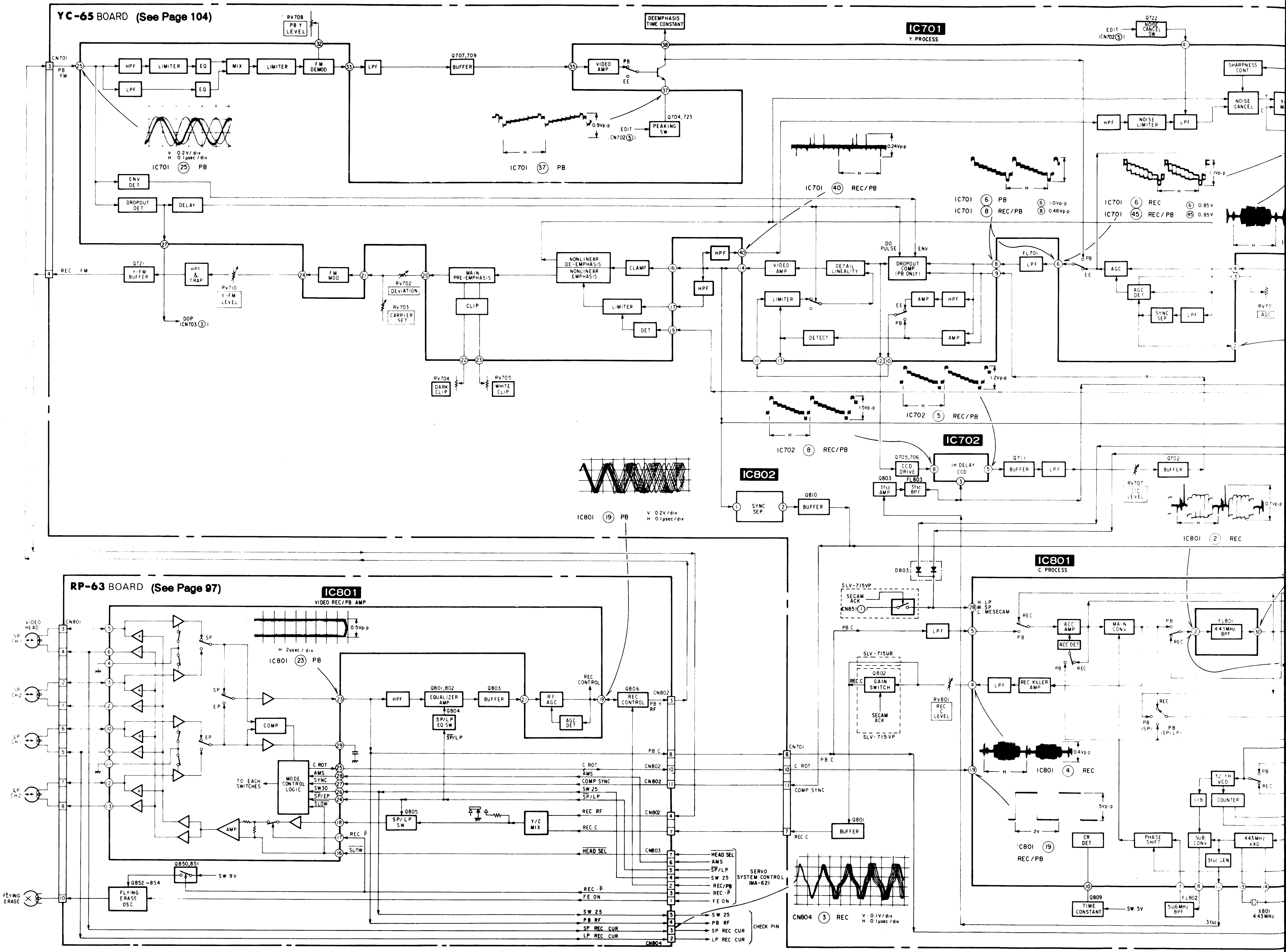

ACE Head
YC-65
(Video)
VI-97
(Relay)
SD-4 (SLF-715VP)
(Secam Detector)
FE Head
IO-40
(Terminal)
MD-49
(Mechanism Drive)
RFU-2027 (SLV-715/VP)
RFU-2028 (SLV-715UB)
(RF Modulator)
TK-12
(Relay)
CM-14
(Loading Motor)
JS-20
(Jog/Shuttle)
Capstan Motor
VP-24 (SLV-715VP)
(VPS)
NM-1 (SLV-715UB)
(NICAM Selector)
VP-24 (SLV-714VP)
(VPS)

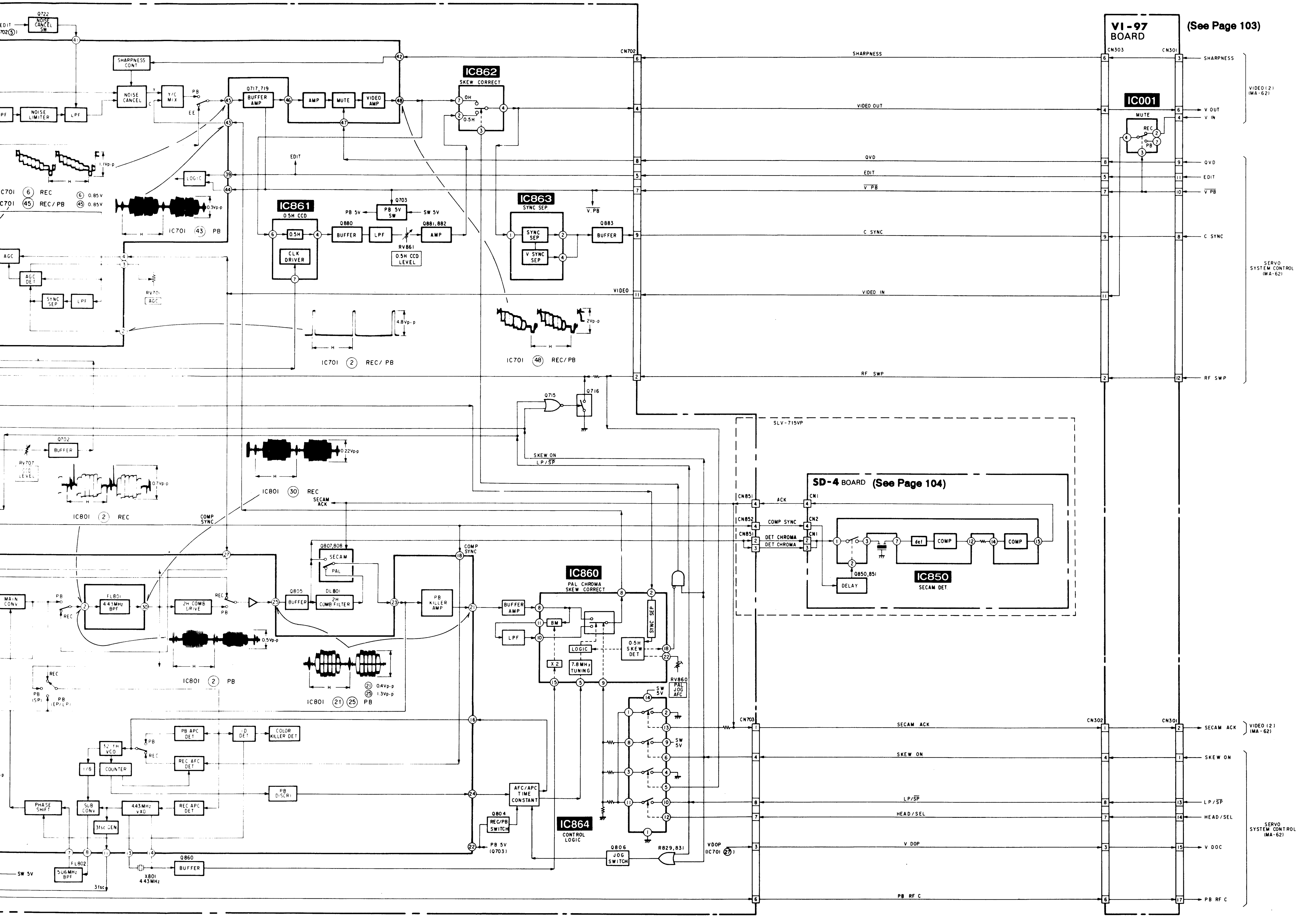
3-2. OVERALL BLOCK DIAGRAM


CNJ005
EURO AV
IN/OUT
(LINE 1)
LINE 1 (V)
MONI OUT (V)
LINE 1 (L,R)
A UOT (L,R)
IC809
LINE 1
LINE 2
TU/LINE 3
CS 3
PI-20 BOARD
(See Page 112)
LINE OUT
IC202
PB
OSD OUT
OSD IN
IC206
CNJ004
EURO AV
IN
(LINE 3)
LINE 3 (V)
LINE 3 (L)
LINE 3 (R)
LINE 3
TUNER
CNJ006
LINE OUT
VIDEO
AUDIO
L
R
LINE OUT (V)
A OUT (L)
A OUT (R)
(See Page 145)
IO-40 BOARD
IC801 etc.
MF-101
BOARD (1/2)
(See Page 155)
HF-9 BOA
(See Page 13
CNJ104
LINE IN 2
VIDEO
AUDIO
L
R
LINE 2 (V)
LINE 2 (L)
LINE 2 (R)
LINE 1
LINE 2
TUNER
LINE 3
L/R MIX
L+R
L
TUNER
MIC
REC LEVEL
CNJ101
MIC
MIC
IC001
OUTPUT SELECT
NOR
CNJ102
HEAD PHONES
HEADPHONE (L, R)
(See Page 115)
SI-10 BOARD
SIMULCAST SWITCH
IC810
IC812
CNJ105
CONTROL L
1
2
3
4
5
(See Page 155)
MF-101 BOARD


YC-65 BOARD
(See Page 104)
IC861
IC701
IC702
IC801
0.5H CCD
1H CCD
Y PROCESS
C PROCESS
REC Y
PB Y
PB C
REC C
IN
PB
IC202
OSD IN
MIX
IC801
REC/PB AMP
HA11801 9NT
VIDEO HEAD
SP CH1
SP CH2
EP CH1
EP CH2
FE ON (SYSTEM CONTROL)
FE OSC
FLYING ERASE HEAD
(See Page 97)
RP-63 BOARD (1/2)
SD-4 BOARD
SECAM DETECT
DET CHROMA
SECAM ACK
(See Page 104)
SLV-715VP
CG-10 BOARD
IC851
ON SCREEN DISPLAY
OSD IN
OSD OUT
(See Page 112)
IC001
IC002
VPS
VP-24 BOARD
(See Page 115)
MA-62 BOARD
(See Page 127) (1/2)
IC501 (1/2)
DRUM PG
DRUM FG
CAPSTAN FG
CTL HEAD
IC402
CTL HEAD CONTROL
REC CTL
PB CTL
IC503
CTL HEAD CONTROL (VISS)
VISS (INDEX)
SERVO
DRUM MOTOR DRIVE
DRUM MOTOR
CAPSTAN MOTOR DRIVE
CAPSTAN MOTOR
IC501 (1/2)
SYSTEM CONTROL
FE ON
VIDEO CONTROL SIGNALS
AUDIO CONTROL SIGNALS
S CLOCK 1
S OUT 1
S IN 1
SUPPLY END SENSOR
TAKE-UP END SENSOR
TAKE-UP REEL SENSOR
TAKE-UP REEL SENSOR
CASSETTE UP/DOWN
REC PROOF
ROTARY SWITCH (CAM POSITION)
CAM/LOADING MOTOR DRIVE
IC502
M904 LOADING MOTOR
M903 CAM MOTOR
SC
SI
SO
POWER SUPPLY BLOCK
POWER SUPPLY
MTR 18V
MTR 12V
SW 12V
SW 9V
SW 5V
UNSW 5.8V
UNSW 35V
-30V
HEAT 3.2V
HEAT 0V
SW -6V
AC IN
POWER CONT
MF-94 BOARD
(See Page 148)
IC201
POWER CONT
SC
SI
SO
KEY MATRIX
KEY
(See Page 158)
SWITCH BLOCK
BUZZER
IC202
NON-VOLATLIE MEMORY
ST,BI
AFT UP/ON
PWM (AUDIO)
TA MUTE
TIMER/ TUNER CONTROL
SIRCS
Q205,206etc SW
LINCS OUT
LINCS IN
FLUORESCENT DISPLAY
DATA,CLK,ENABLE
LEVEL M,L,R
REMOTE COMMANDER RECIEVER
IC401
GP1U52X
(See Page 149)
RM-41 BOARD
SIRCS SW
CONTROL S IN
CONTROL S OUT
10-41 BOARD (1/2)
(See Page 145)
JOG/SHUTTLE
JS-20 BOARD
(See Page 158)
MF-101 BOARD (1/2)
(See Page 155)
REC LEVEL
HF-9 BOARD
(See Page 139)
IC001
NOISE REDUCTION & EMPHASIS
IC002
SWITCHING NOISE REDUCTION
FM MOD/DEMOD
IC001
OUTPUT SELECT
AFM A
NOR A
(See Page 115)
RP-63 BOARD
(See Page 97) (1/2)
IC101
AFM REC/PB AMP
AFM AUDIO HEAD
CH1
CH2
AUDIO
VIDEO
RF MOD
MIX
SPLITER
AERIAL OUT
AERIAL IN
SI-10 BOARD
SIMULCAST SWITCH
IC810
IC812
IC251
NORMAL AUDIO REC/PB AMP
AUDIO REC/PB HEAD
BIAS/ERASE OSC
AUDIO ERASE HEAD
FULL/ERASE OSC
FULL ERASE HEAD
SLV-715 UB
NA-7,NM-1 BOARD
IC001 ~ IC006
NICAM DECODER
(See Page 165, 166)
(See Page 116) MA-62 BOARD (1/2)
(See Page 171)
TU-120 BOARD
TU001
UHF/VHF TUNER
IF
IF001
VIF SIF
VIDEO
MPX
2NDIF
SLV-715/VP
MPX001
MPX DECODER
ST,BI
AFT UP/ON
TU(L),TU(R),TU(L+R)

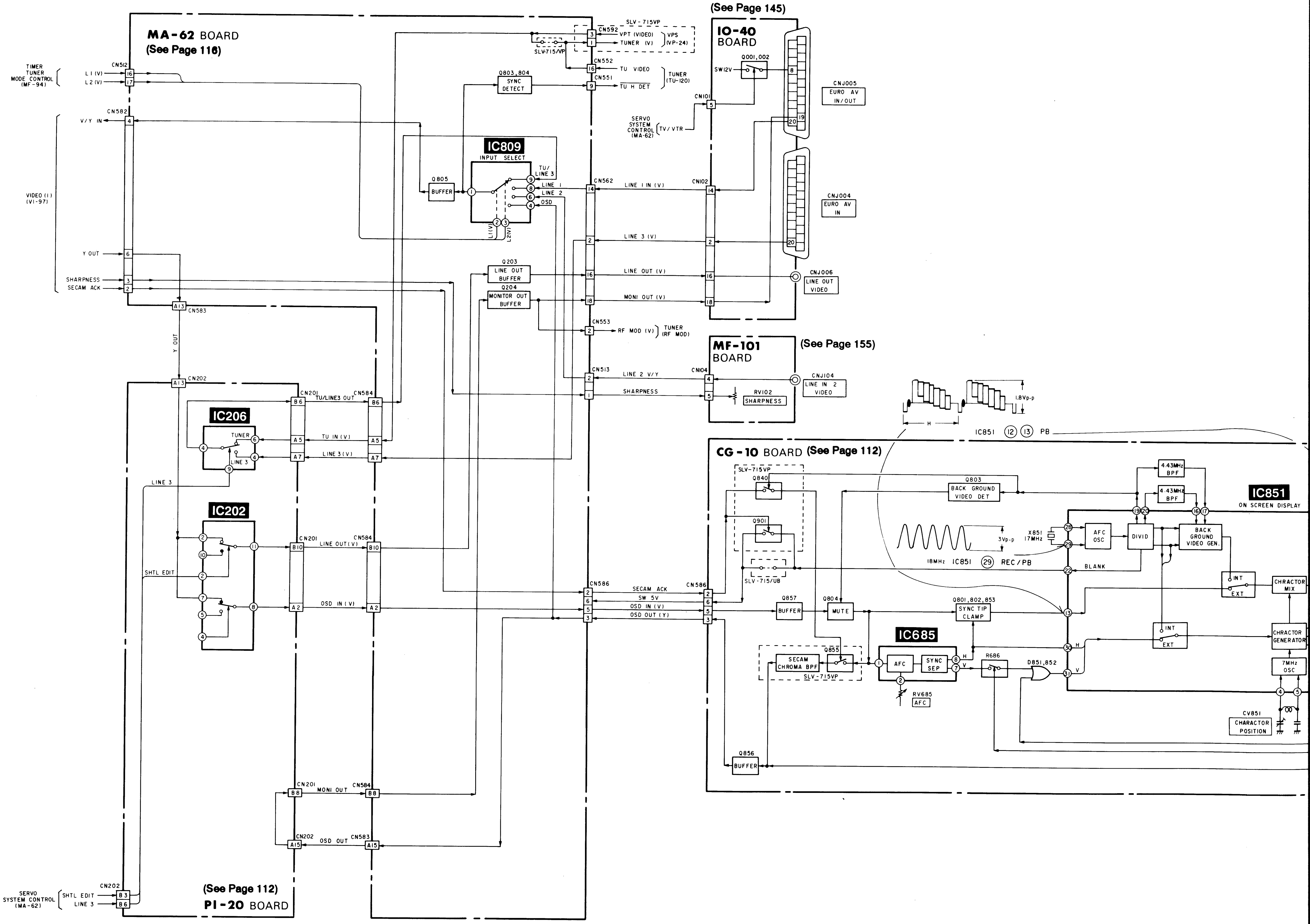
3-3. VIDEO (1) BLOCK DIAGRAM


YC-65 BOARD (See Page 104)
IC701
Y PROCESS
CN701
PB FM
REC FM
HPF
LIMITER
EQ
MIX
FM DEMOD
LPF
Q707,709 BUFFER
DEEMPHASIS TIME CONSTANT
VIDEO AMP
PEAKING SW
Q704,723
RV708 PB Y LEVEL
EDIT (CN702 ⑤)
Q722 NOISE CANCEL SW
SHARPNESS CONT
NOISE CANCEL
NOISE LIMITER
ENV DET
DROPOUT DET
DELAY
Q721 Y-FM BUFFER
HPF & TRAP
RV710 Y-FM LEVEL
DOP (CN703 ③)
FM MOD
RV702 DEVIATION
RV703 CARRIER SET
MAIN PRE-EMPHASIS
CLIP
RV704 DARK CLIP
RV705 WHITE CLIP
NONLINEAR DE-EMPHASIS
NONLINEAR EMPHASIS
CLAMP
LIMITER
DET
DETAIL LINEALITY
DROPOUT COMP (PB ONLY)
DO PULSE
ENV
DETECT
AMP
AGC
AGC DET
SYNC SEP
RV701 AGC
FL701 LPF
IC701 ㉕ PB
V 0.2V/div H 0.1μsec/div
IC701 ㊲ PB
0.9Vp-p
IC701 ㊵ REC/PB
0.24Vp-p
IC701 ⑥ PB
IC701 ⑧ REC/PB
⑥ 1.0Vp-p
⑧ 0.48Vp-p
IC701 ⑥ REC
IC701 ㊺ REC/PB
⑥ 0.85V
㊺ 0.85V
1.1Vp-p
IC702 ⑤ REC/PB
1.2Vp-p
IC702 ⑧ REC/PB
1.5Vp-p
IC702
Q705,706 CCD DRIVE
1H DELAY CCD
Q711 BUFFER
Q803 3fsc AMP
FL803 3fsc BPF
RV707 LEVEL
Q702 BUFFER
0.7Vp-p
IC802
SYNC SEP
Q810 BUFFER
IC801 ⑲ PB
V 0.2V/div H 0.1μsec/div
IC801 ② REC
RP-63 BOARD (See Page 97)
IC801
VIDEO REC/PB AMP
VIDEO HEAD
SP CH1
LP CH2
LP CH1
SP CH2
CN801
FLYING ERASE
0.5Vp-p
H 2μsec/div
IC801 ㉓ PB
SP
EP
COMP
HPF
Q801,802 EQUALIZER AMP
Q804 SP/LP EQ SW
SP/LP
Q803 BUFFER
RF AGC
AGC DET
REC CONTROL
Q806 REC CONTROL
PB Y RF
CN802
MODE CONTROL LOGIC
TO EACH SWITCHES
C ROT
AMS
SYNC
SW30
SP/EP
SLOW
REC β
AMP
Q805 SP/LP SW
Y/C MIX
Q850,851
SW 9V
Q852~854
FLYING ERASE OSC
PB C
COMP SYNC
SW 25
REC RF
REC C
HEAD SEL
CN803
REC β
FE ON
SERVO SYSTEM CONTROL (MA-62)
PB RF
SP REC CUR
LP REC CUR
CN804
CHECK PIN
CN804 ③ REC
V 0.1V/div H 0.1μsec/div
CN701
Q801 BUFFER
D803
SLV-715VP
SECAM ACK
CN851 ①
SLV-715UB
Q802 GAIN SWITCH
SECAM ACK
RV801 REC C LEVEL
IC801
C PROCESS
H: LP M: SP L: MESECAM
ACC AMP
ACC DET
MAIN CONV
FL801 4.43MHz BPF
LPF
REC KILLER AMP
PB (SP)
PB (EP/LP)
0.4Vp-p
IC801 ④ REC
5Vp-p
2V
IC801 ⑲ REC/PB
CR DET
Q809 TIME CONSTANT
SW 5V
PHASE SHIFT
FL802 5.06MHz BPF
SUB CONV
3fsc GEN
4.43MHz VXO
X801 4.43MHz
1/6
COUNTER
VCO

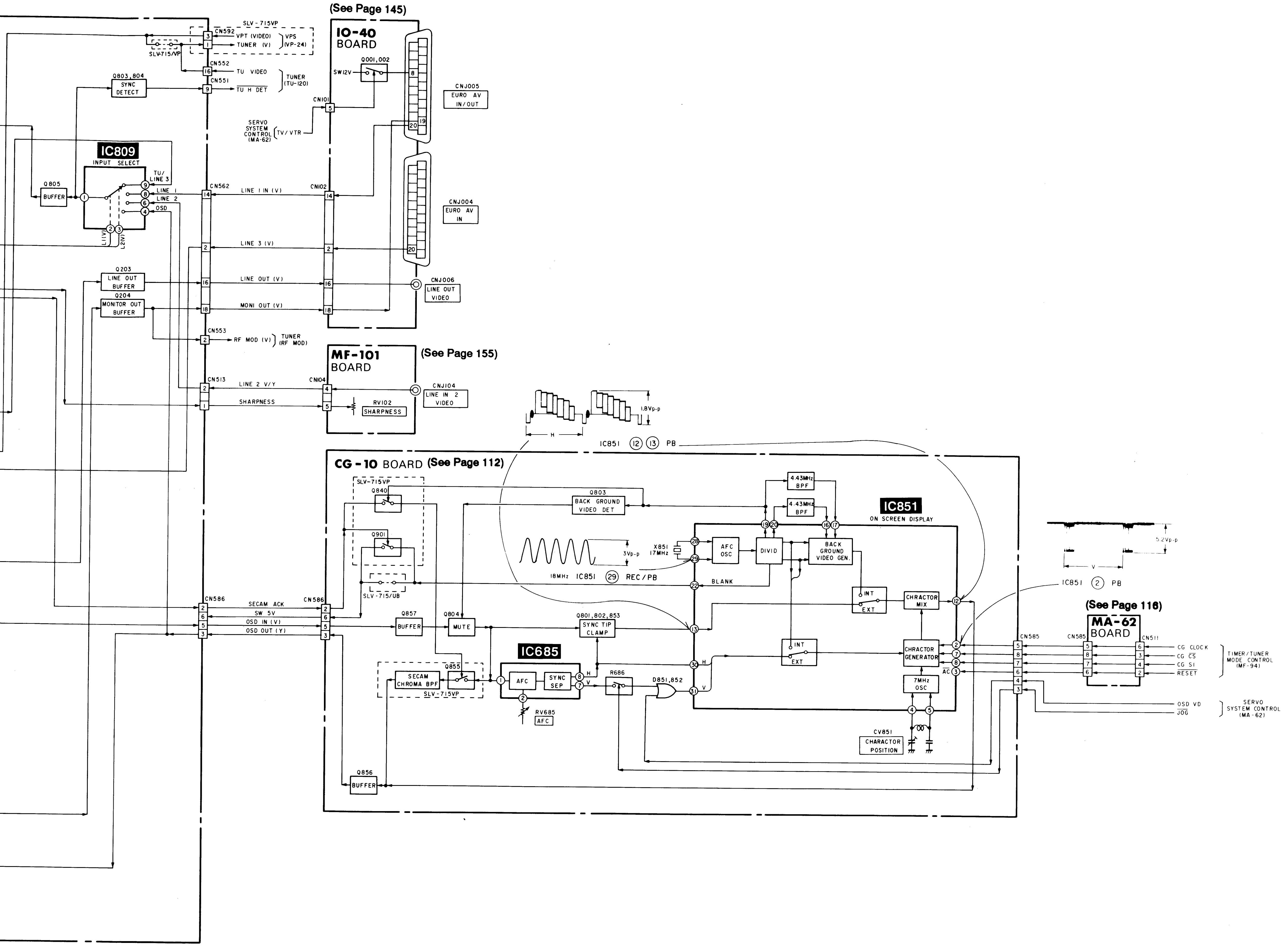


VI-97
BOARD
(See Page 103)
SD-4 BOARD (See Page 104)
SLV-715VP
IC862
SKEW CORRECT
IC861
0.5H CCD
IC863
SYNC SEP
IC860
PAL CHROMA SKEW CORRECT
IC864
CONTROL LOGIC
IC850
SECAM DET
IC001
MUTE
Q722
NOISE CANCEL SW
SHARPNESS CONT
NOISE CANCEL
Y/C MIX
NOISE LIMITER
LPF
Q717,719
BUFFER AMP
AMP
MUTE
VIDEO AMP
LOGIC
CLK DRIVER
Q880
BUFFER
Q703
PB 5V SW
PB 5V
SW 5V
Q881,882
AMP
RV861
0.5H CCD LEVEL
SYNC SEP
V SYNC SEP
Q883
BUFFER
AGC
AGC DET
SYNC SEP
RV701
AGC
Q715
Q716
Q702
BUFFER
RV707
CCD LEVEL
IC701 ⑥ REC
IC701 ㊺ REC/PB
⑥ 0.85V
㊺ 0.85V
1.1Vp-p
0.3Vp-p
IC701 ㊸ PB
4.8Vp-p
IC701 ② REC/PB
2Vp-p
IC701 ㊽ REC/PB
0.22Vp-p
0.7Vp-p
IC801 ㉚ REC
IC801 ② REC
0.5Vp-p
IC801 ② PB
㉑ 0.4Vp-p
㉕ 1.3Vp-p
IC801 ㉑ ㉕ PB
EDIT
V.PB
VIDEO
SKEW ON
LP/SP
SECAM ACK
COMP SYNC
Q807,808
SECAM
PAL
Q805
BUFFER
DL801
2H COMB FILTER
PB KILLER AMP
MAIN CONV
FL801
4.43MHz BPF
2H COMB DRIVE
BUFFER AMP
LPF
BM
LOGIC
X2
7.8MHz TUNING
0.5H SKEW DET
SYNC SEP
RV860
PAL JOG AFC
SW 5V
PB APC DET
I.D DET
COLOR KILLER DET
32f H VCO
REC AFC DET
1/8
COUNTER
PB DISCRI
PHASE SHIFT
SUB CONV
443MHz VXO
REC APC DET
3fsc GEN
AFC/APC TIME CONSTANT
Q804
REC/PB SWITCH
PB 5V (Q703)
Q806
JOG SWITCH
R829,831
VDOP (IC701 ㉗)
FL802
5.06MHz BPF
X801
4.43MHz
Q860
BUFFER
3fsc
PB (SP)
PB (EP/LP)
ACK
DET CHROMA
def
COMP
DELAY
Q850,851
CN702
CN703
CN851
CN852
CN1
CN2
CN303
CN301
CN302
SHARPNESS
VIDEO OUT
QVD
EDIT
V PB
C SYNC
VIDEO IN
RF SWP
SECAM ACK
SKEW ON
LP/SP
HEAD/SEL
V DOP
PB RF C
V OUT
V IN
V DOC
VIDEO(2) (MA-62)
SERVO SYSTEM CONTROL (MA-62)

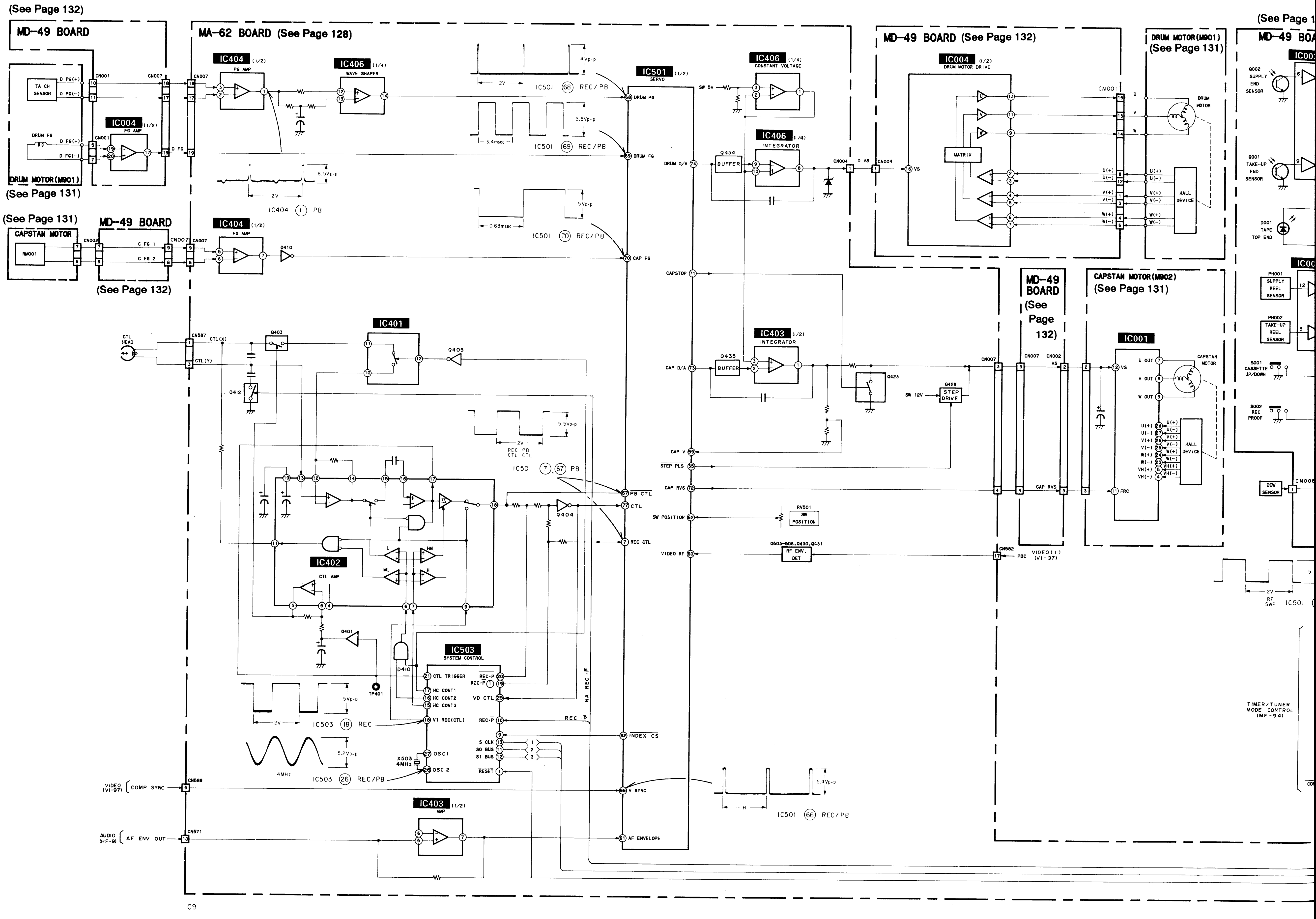
3-4. VIDEO (2) BLOCK DIAGRAM

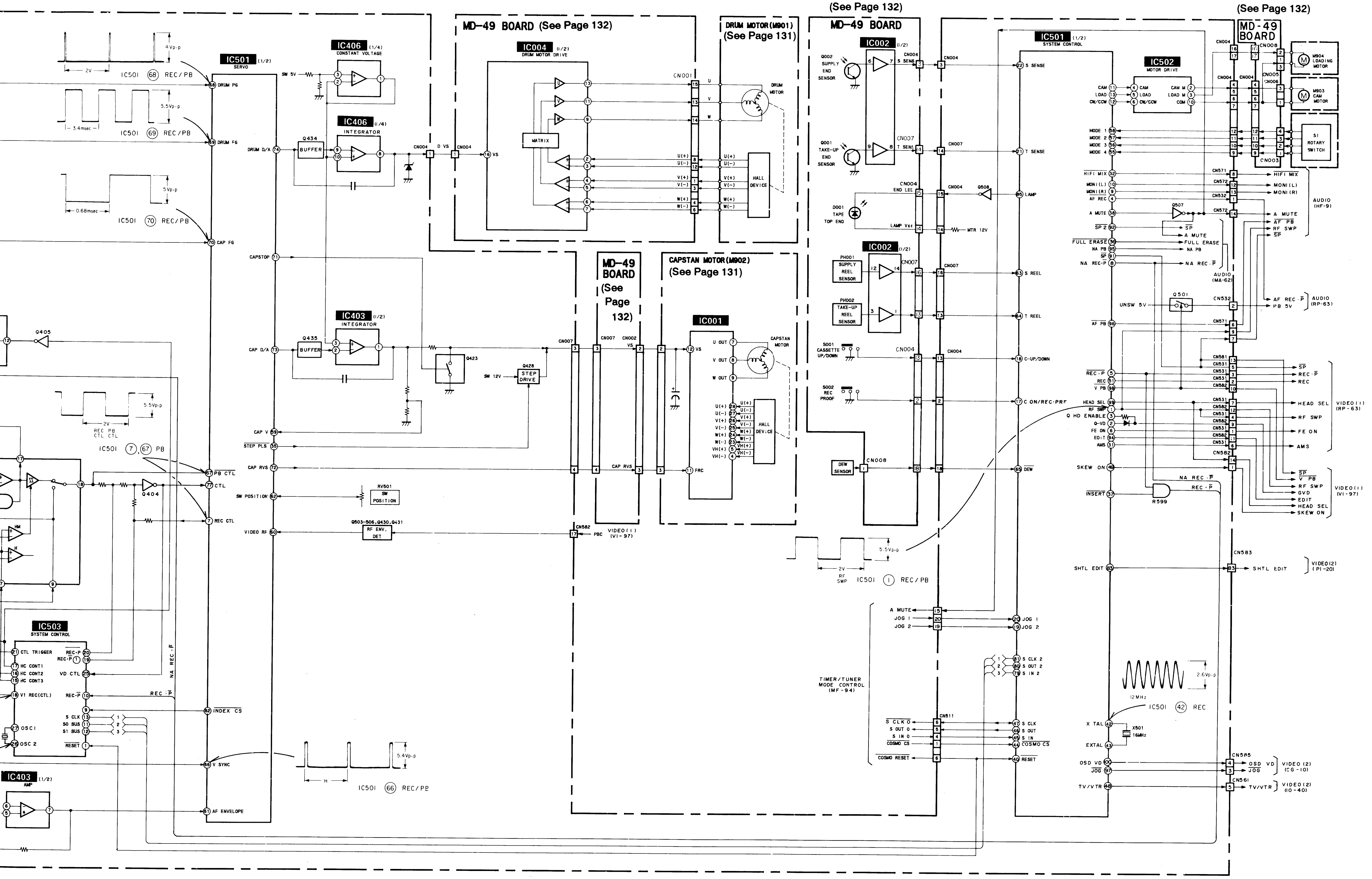

MA-62 BOARD
(See Page 116)
TIMER
TUNER
MODE CONTROL
(MF-94)
L1 (V)
L2 (V)
CN512
CN582
V/Y IN
VIDEO (1)
(VI-97)
Y OUT
SHARPNESS
SECAM ACK
CN583
Y OUT
Q803,804
SYNC DETECT
IC809
INPUT SELECT
TU/LINE 3
LINE 1
LINE 2
OSD
L1(V)
L2(V)
Q805
BUFFER
Q203
LINE OUT BUFFER
Q204
MONITOR OUT BUFFER
SLV-715/VP
CN592
SLV-715VP
VPT (VIDEO)
TUNER (V)
VPS
(VP-24)
CN552
TU VIDEO
CN551
TU H DET
TUNER
(TU-120)
CN562
LINE 1 IN (V)
LINE 3 (V)
LINE OUT (V)
MONI OUT (V)
CN553
RF MOD (V)
TUNER
(RF MOD)
CN513
LINE 2 V/Y
SHARPNESS
(See Page 145)
IO-40 BOARD
Q001,002
SW12V
CN101
SERVO
SYSTEM
CONTROL
(MA-62)
TV/VTR
CN102
CNJ005
EURO AV IN/OUT
CNJ004
EURO AV IN
CNJ006
LINE OUT VIDEO
MF-101 BOARD
(See Page 155)
CN104
RV102
SHARPNESS
CNJ104
LINE IN 2 VIDEO
CN202
CN201
TU/LINE3 OUT
CN584
IC206
TUNER
LINE 3
TU IN (V)
LINE 3 (V)
LINE 3
IC202
SHTL EDIT
LINE OUT (V)
OSD IN (V)
MONI OUT
OSD OUT
CN586
SECAM ACK
SW 5V
OSD IN (V)
OSD OUT (Y)
SERVO
SYSTEM CONTROL
(MA-62)
SHTL EDIT
LINE 3
(See Page 112)
PI-20 BOARD
1.8Vp-p
H
IC851 ⑫ ⑬ PB
CG-10 BOARD (See Page 112)
SLV-715VP
Q840
Q901
SLV-715/UB
Q803
BACK GROUND VIDEO DET
4.43MHz BPF
4.43MHz BPF
IC851
ON SCREEN DISPLAY
3Vp-p
X851
17MHz
18MHz IC851 ㉙ REC/PB
AFC OSC
DIVID
BACK GROUND VIDEO GEN.
BLANK
INT
EXT
CHRACTOR MIX
Q857
BUFFER
Q804
MUTE
Q801,802,853
SYNC TIP CLAMP
IC685
AFC
SYNC SEP
RV685
AFC
Q855
SECAM CHROMA BPF
SLV-715VP
R686
D851,852
H
V
CHRACTOR GENERATOR
7MHz OSC
CV851
CHARACTOR POSITION
Q856
BUFFER

09


(See Page 145)
IO-40 BOARD
SLV-715VP
CN592
VPT (VIDEO)
TUNER (V)
VPS (VP-24)
SLV-715/VP
CN552
TU VIDEO
CN551
TU H DET
TUNER (TU-120)
Q803,804
SYNC DETECT
Q001,002
SW12V
CN101
SERVO SYSTEM CONTROL (MA-62)
TV/VTR
CNJ005
EURO AV IN/OUT
CNJ004
EURO AV IN
IC809
INPUT SELECT
TU/LINE 3
LINE 1
LINE 2
OSD
Q805
BUFFER
L1(V)
L2(V)
CN562
LINE 1 IN (V)
CN102
LINE 3 (V)
Q203
LINE OUT BUFFER
Q204
MONITOR OUT BUFFER
LINE OUT (V)
MONI OUT (V)
CNJ006
LINE OUT VIDEO
CN553
RF MOD (V)
TUNER (RF MOD)
MF-101 BOARD
(See Page 155)
CN513
LINE 2 V/Y
CN104
SHARPNESS
RV102
SHARPNESS
CNJ104
LINE IN 2 VIDEO
H
1.8Vp-p
IC851 ⑫ ⑬ PB
CG-10 BOARD (See Page 112)
SLV-715VP
Q840
Q803
BACK GROUND VIDEO DET
4.43MHz BPF
4.43MHz BPF
IC851
ON SCREEN DISPLAY
Q901
X851 17MHz
AFC OSC
DIVID
BACK GROUND VIDEO GEN.
3Vp-p
18MHz IC851 ㉙ REC/PB
BLANK
SLV-715/UB
INT
EXT
CHRACTOR MIX
CN586
SECAM ACK
SW 5V
OSD IN (V)
OSD OUT (Y)
CN586
Q857
BUFFER
Q804
MUTE
Q801,802,853
SYNC TIP CLAMP
INT
EXT
CHRACTOR GENERATOR
AC
IC685
SECAM CHROMA BPF
Q855
SLV-715VP
AFC
SYNC SEP
R686
D851,852
RV685
AFC
7MHz OSC
CV851
CHARACTOR POSITION
Q856
BUFFER
5.2Vp-p
V
IC851 ② PB
(See Page 116)
MA-62 BOARD
CN585
CN585
CN511
CG CLOCK
CG CS
CG SI
RESET
TIMER/TUNER MODE CONTROL (MF-94)
OSD VD
JOG
SERVO SYSTEM CONTROL (MA-62)

3-5. SERVO, SYSTEM CONTROL BLOCK DIAGRAM


(See Page 132)
MD-49 BOARD
MA-62 BOARD (See Page 128)
MD-49 BOARD (See Page 132)
DRUM MOTOR(M901) (See Page 131)
(See Page 1
MD-49 BOA
TA CH SENSOR
D PG(+)
D PG(−)
DRUM FG
D FG(+)
D FG(−)
IC004 (1/2) FG AMP
DRUM MOTOR(M901)
(See Page 131)
(See Page 131)
MD-49 BOARD
CAPSTAN MOTOR
RM001
C FG 1
C FG 2
(See Page 132)
IC404 (1/2) PG AMP
IC406 (1/4) WAVE SHAPER
IC404 (1/2) FG AMP
Q410
IC404 ① PB
IC501 68 REC/PB
IC501 69 REC/PB
IC501 70 REC/PB
4Vp-p
5.5Vp-p
6.5Vp-p
5Vp-p
3.4msec
0.68msec
IC501 (1/2) SERVO
DRUM PG
DRUM FG
CAP FG
CAPSTOP
DRUM D/A
CAP D/A
CAP V
STEP PLS
CAP RVS
SW POSITION
VIDEO RF
PB CTL
CTL
REC CTL
INDEX CS
V SYNC
AF ENVELOPE
IC406 (1/4) CONSTANT VOLTAGE
IC406 (1/4) INTEGRATOR
Q434 BUFFER
IC403 (1/2) INTEGRATOR
Q435 BUFFER
Q423
Q428 STEP DRIVE
SW 12V
SW 5V
RV501 SW POSITION
Q503-506,Q430,Q431 RF ENV. DET
IC004 (1/2) DRUM MOTOR DRIVE
MATRIX
CN001
D VS
VS
U(+) U(−) V(+) V(−) W(+) W(−)
HALL DEVICE
DRUM MOTOR
MD-49 BOARD (See Page 132)
CAPSTAN MOTOR(M902) (See Page 131)
IC001
U OUT
V OUT
W OUT
FRC
CAPSTAN MOTOR
VH(+) VH(−)
CAP RVS
VIDEO(I) (VI-97)
PBC
CN582
Q002 SUPPLY END SENSOR
Q001 TAKE-UP END SENSOR
D001 TAPE TOP END
PH001 SUPPLY REEL SENSOR
PH002 TAKE-UP REEL SENSOR
S001 CASSETTE UP/DOWN
S002 REC PROOF
DEW SENSOR
RF SWP IC501
TIMER/TUNER MODE CONTROL (MF-94)
CTL HEAD
CN587
CTL(X)
CTL(Y)
Q403
Q412
IC401
Q405
IC402 CTL AMP
L HM ML H
Q404
Q401
TP401
D410
IC501 ⑦,67 PB
5.5Vp-p
REC PB CTL CTL
IC503 SYSTEM CONTROL
CTL TRIGGER
HC CONT1
HC CONT2
HC CONT3
V1 REC(CTL)
OSC1
OSC 2
X503 4MHz
REC·P
VD CTL
S CLK
S0 BUS
S1 BUS
RESET
NA REC·P
IC503 18 REC
IC503 26 REC/PB
5Vp-p
5.2Vp-p
4MHz
VIDEO (VI-97) COMP SYNC
CN589
AUDIO (HF-9) AF ENV OUT
CN571
IC403 (1/2) AMP
IC501 66 REC/PB
5.4Vp-p
09


MD-49 BOARD (See Page 132)
DRUM MOTOR (M901) (See Page 131)
(See Page 132)
MD-49 BOARD
(See Page 132)
MD-49 BOARD
IC501 (1/2) SERVO
IC406 (1/4) CONSTANT VOLTAGE
IC406 (1/4) INTEGRATOR
IC004 (1/2) DRUM MOTOR DRIVE
MATRIX
HALL DEVICE
DRUM MOTOR
IC501 68 REC/PB
IC501 69 REC/PB
IC501 70 REC/PB
4Vp-p
5.5Vp-p
5Vp-p
2V
3.4msec
0.68msec
DRUM PG
DRUM FG
CAP FG
DRUM D/A
CAPSTOP
CAP D/A
CAP V
STEP PLS
CAP RVS
SW POSITION
VIDEO RF
BUFFER
Q434
Q435
IC403 (1/2) INTEGRATOR
Q423
Q428 STEP DRIVE
SW 12V
SW 5V
MD-49 BOARD (See Page 132)
CAPSTAN MOTOR (M902) (See Page 131)
IC001
CAPSTAN MOTOR
U OUT
V OUT
W OUT
FRC
CN001
CN002
CN004
CN007
CN582
PBC
VIDEO(1) (VI-97)
RV501 SW POSITION
Q503-506,Q430,Q431 RF ENV. DET
Q405
Q404
IC501 7, 67 PB
REC PB CTL CTL
PB CTL
CTL
REC CTL
IC503 SYSTEM CONTROL
CTL TRIGGER
HC CONT1
HC CONT2
HC CONT3
V1 REC(CTL)
OSC1
OSC 2
REC·P
VD CTL
S CLK
SO BUS
SI BUS
RESET
NA REC·P
INDEX CS
V SYNC
AF ENVELOPE
IC403 (1/2) AMP
5.4Vp-p
H
IC501 66 REC/PB
IC002 (1/2)
Q002 SUPPLY END SENSOR
Q001 TAKE-UP END SENSOR
S SENS
T SENS
D001 TAPE TOP END
END LED
LAMP Vcc
MTR 12V
Q508
PH001 SUPPLY REEL SENSOR
PH002 TAKE-UP REEL SENSOR
S001 CASSETTE UP/DOWN
S002 REC PROOF
DEW SENSOR
CN008
5.5Vp-p
2V
RF SWP
IC501 1 REC/PB
TIMER/TUNER MODE CONTROL (MF-94)
A MUTE
JOG 1
JOG 2
CN511
S CLK O
S OUT O
S IN O
COSMO CS
COSMO RESET
IC501 (1/2) SYSTEM CONTROL
S SENSE
T SENSE
LAMP
S REEL
T REEL
C-UP/DOWN
C ON/REC·PRF
DEW
S CLK 2
S OUT 2
S IN 2
S CLK
S OUT
S IN
RESET
IC502 MOTOR DRIVE
CAM
LOAD
CW/CCW
CAM M
LOAD M
COM
MODE 1
MODE 2
MODE 3
MODE 4
HIFI MIX
MONI(L)
MONI(R)
AF REC
SP 2
FULL ERASE
NA PB
SP
NA REC·P
Q507
Q501
UNSW 5V
AF PB
REC·P
REC
V PB
HEAD SEL
RF SWP
Q HD ENABLE
Q-VD
FE ON
EDIT
AMS
SKEW ON
INSERT
R599
SHTL EDIT
CN583
2.6Vp-p
12MHz
IC501 42 REC
X TAL
X501 16MHz
EXTAL
OSD VD
JOG
TV/VTR
CN585
CN561
MD-49 BOARD
CN008
CN005
CN006
CN003
M904 LOADING MOTOR
M903 CAM MOTOR
S1 ROTARY SWITCH
AUDIO (HF-9)
AUDIO (MA-62)
AF REC·P
PB 5V
AUDIO (RP-63)
VIDEO(1) (RP-63)
GVD
VIDEO(1) (VI-97)
VIDEO(2) (PI-20)
VIDEO(2) (CG-10)
VIDEO(2) (IO-40)

3-6. SYSTEM CONTROL — VIDEO BLOCK INTERFACE

Signal	I/O	Pin No.	STOP/ FF/REW	TAPE LOADING	TAPE UNLOADING	PB	PB• PAUSE	SLOW	×2	CUE	REVIEW	REC	REC• PAUSE	INSERT	INSERT• PAUSE
$\overline{\text{V•PB}}$	O	Pin (98) of IC501 on MA-62 board	H	H	H	L	L	L	L	L	L	H	H	H*12	H*12
HEAD SEL	O	Pin (99) of IC501 on MA-62 board	L	L	L	L	H	*1	H	L	L	H	L	H*12	L
RF SW P (SW25)	O	Pin ① of IC501 on MA-62 board	*2	*2	*2	*2	*2	*2	*2	*2	*2	*2	*2	*2	*2
Q VD/V MUTE	O	Pin ② of IC501 on MA-62 board	L	L	L	*3	*4	*4	*4	*4	*4	L	L	L	L*11
FE ON	O	Pin ⑥ of IC501 on MA-62 board	L	L	L	L	L	L	L	L	L	*5	L	H*12	L
EDIT	O	Pin (94) of IC501 on MA-62 board	L	L	L	*6	*6	*6	*6	*6	*6	*6	L	*6	L
AMS	O	Pin ㉛ of IC501 on MA-62 board	L	L	L	L	L	L	L	*7	*7	L	L	L	L
$\overline{\text{SP}}$	O	Pin (91) of IC501 on MA-62 board	*8	*8	*8	*9	*9	*9	*9	*9	*9	*8	*8	*9	*9
$\overline{\text{SP•2}}$	O	Pin (92) of IC501 on MA-62 board	*8	*8	*8	*9	*9	*9	*9	*9	*9	*8	*8	*9	*9
LP•HEAD	O	Pin (93) of IC501 on MA-62 board	*9	*9	*9	*9	L	L	L	L	L	*9	*9	*9	*9
REC•$\overline{\text{P}}$	O	Pin ⑤ of IC501 on MA-62 board	L	L	L	L	L	L	L	L	L	H	L	H	L
REC	O	Pin (51) of IC501 on MA-62 board	L	L	L	L	L	L	L	L	L	H	H	H	H
V SYNC	I	Pin (66) of IC501 on MA-62 board	*10	*10	*10	*10	*10	*10	*10	*10	*10	*10	*10	*10	*10

*1. "H": when tape stopped. "L": when tape running (for approx. 40 msec).
*2. Sync with drum revolution. 25 Hz 50% DUTY pulse.
*3. "L": normally. "H": when CTL signal is not played back.
*4. V cycle "H" pulse.
*5. "H": when REC start (SP: for approx. 10 sec, LP: for approx. 20 sec)
*6. "L": normally. "H": EDIT mode.
*7. HI-Z (2.5V) in SP mode. "L": LP mode.
*8. According to SP/LP selector. "L": SP mode, "H": LP mode.

*9. According to tape REC mode.

Signal \ Mode	SP	LP
$\overline{\text{SP}}$ (Pin (91))	L	H
$\overline{\text{SP2}}$ (Pin (92))	L	L
LP HEAD (Pin (93))	L	H

*10. Composite sync signal (positive polarity).
*11. V cycle "H" pulse: when A INS.PAUSE mode.
*12. "L": when A INS or A INS.PAUSE mode.

3-7. SYSTEM CONTROL — SERVO PERIPHERAL CIRCUIT INTERFACE

Signal	I/O	Mode Pin No.	STOP	FF	REW	TAPE LOADING	TAPE UNLOADING	PB	PB• PAUSE	SLOW	×2	CUE	REVIEW	REC	REC• PAUSE	INSERT	INSERT• PAUSE
REC CTL*1	O	Pin ⑦ of IC501 on MA-62 board	*1	*1	*1	*1	*1	*1	*1	*1	*1	*1	*1	*1	*1	*1	*1
CAP STOP	O	Pin (71) of IC501 on MA-62 board	H	L	L	L	L	L	H	H	L	L	L	L	H	L	H
$\overline{\text{STEP PLS}}$	O	Pin ㉟ of IC501 on MA-62 board	H	H	H	H	H	H	H	*2	H	H	H	H	H	H	H
CAP V*3	I	Pin (59) of IC501 on MA-62 board															
SW POSITION*4	I	Pin (62) of IC501 on MA-62 board															
PB CTL	I	Pin (67) of IC501 on MA-62 board	H	*6	*6			*1	H/L	*2	*6	*6	*6	*1	H	*1	H
VD CTL	I	Pin (77) of IC501 on MA-62 board	H	*6	*6			*1	H/L	*2	*6	*6	*6	*1	H	*1	H
DRUM PG	I	Pin (68) of IC501 on MA-62 board	L	*7	*7	*5	*5	*7	*7	*7	*7	*7	*7	*7	*7	*7	*7
DRUM FG	I	Pin (69) of IC501 on MA-62 board	L	*8	*8	*5	*5	*8	*8	*8	*8	*8	*8	*8	*8	*8	*8
CAP FG	I	Pin (70) of IC501 on MA-62 board	H/L	*6	*6	*5	*5	*6	H/L	*9	*6	*6	*6	*6	H/L	*6	H/L
INDEX $\overline{\text{CS}}$	O	Pin (82) of IC501 on MA-62 board	*10	*10	*10	*10	*10	*10	*10	*10	*10	*10	*10	*10	*10	*10	*10
CAP RVS	O	Pin (72) of IC501 on MA-62 board	H/L	L	H	L	H	L	L	*2	L	L	H	L	L	L	L
CAP DA*14	O	Pin (73) of IC501 on MA-62 board	*11	*11	*11	*11	*11	*12	*11	*11	*12	*12	*12	*12	*11	*12	*11
DRUM DA*14	O	Pin (74) of IC501 on MA-62 board	*13	*13	*13	*13	*13	*13	*13	*13	*13	*13	*13	*13	*13	*13	*13
REC·$\overline{\text{P}}$	O	Pin ⑤ of IC501 on MA-62 board	L	L	L	L	L	L	L	L	L	L	L	H	L	H	L
$\overline{\text{INSERT}}$	O	Pin ㊲ of IC501 on MA-62 board	H	H	H	H	H	H	H	H	H	H	H	H	H	L	H

*1. 25 Hz pulse
*2. Tape running pulse
*3. Input terminal for capstan constant voltage driving. Used fro cassette loading/unloading, etc.
*4. Input terminal for switching position adjustment.
*5. Non periodical pulse
*6. Cycle pulse proportional to tape speed.
*7. 25 Hz "H" pulse
*8. 300 Hz pulse
*9. Tape running pulse
*10. 8 msec cycle pulse
*11. Approx. 2 msec cycle "H" or "L" pulse.
*12. Approx. 1.5 msec cycle "H" or "L" pulse.
*13. Approx. 3 msec cycle "H" or "L" pulse.
*14. Tri-state output of "H", "L" and "HI-Z (2.5V)".

3-8. SYSTEM CONTROL — MECHANISM BLOCK INTERFACE

Mode			HI-SPEED REW	EJECTED	CASSETTE LOADING	CASSETTE UNLOADING	TAPE LOADING	TAPE UNLOADING	STOP	FF	REW	PB	PB• PAUSE	SLOW	×2	CUE	REVIEW	REC	REC PAUSE
Signal	I/O	Pin No.																	
CAM *1	O	Pin ⑪ of IC501 on MA-62 board	L	L	L	L	H	H	L	L	L	L	L	L	L	L	L	L	L
LOAD	O	Pin ⑬ of IC501 on MA-62 board	L	L	H	H	L	L	L	L	L	L	L	L	L	L	L	L	L
CW/CCW	O	Pin ⑫ of IC501 on MA-62 board			H	L	H	L											
MODE 1	I	Pin (58) of IC501 on MA-62 board	H	L	L	L	H	H	L	H	H	H	L	L	H	H	H	H	L
MODE 2	I	Pin (57) of IC501 on MA-62 board	L	H	H	H	H	H	L	L	L	L	H	H	L	L	L	L	H
MODE 3	I	Pin (56) of IC501 on MA-62 board	H	H	H	H	L	L	L	L	L	H	H	H	H	H	L	H	H
MODE 4	I	Pin (55) of IC501 on MA-62 board	H	H	H	H	H	H	L	H	H	L	L	L	L	L	L	L	L
REC PRF	I	Pin ⑰ of IC501 on MA-62 board	*2	L	*2	*2	*2	*2	*2	*2	*2	*2	*2	*2	*2	*2	*2	*2	*2
C-UP/DOWN	I	Pin ⑱ of IC501 on MA-62 board	L	H	H→L	L→H	L	L	L	L	L	L	L	L	L	L	L	L	L
T REEL	I	Pin (64) of IC501 on MA-62 board	*3	H/L	H/L	H/L	H/L	H/L	H/L	*3	*3	*3	H/L	*3	*3	*3	*3	*3	H/L
S REEL	I	Pin (63) of IC501 on MA-62 board	*3	H/L	H/L	H/L	*3	*3	H/L	*3	*3	*3	H/L	*3	*3	*3	*3	*3	H/L
LAMP	O	Pin (85) of IC501 on MA-62 board	*4	*4	*4	*4	*4	*4	*4	*4	*4	*4	*4	*4	*4	*4	*4	*4	*4
DEW	I	Pin (65) of IC501 on MA-62 board	*5	*5	*5	*5	*5	*5	*5	*5	*5	*5	*5	*5	*5	*5	*5	*5	*5
CAP V	I	Pin (59) of IC501 on MA-62 board	*6	*6	*6	*6	*6	*6	*6	*6	*6	*6	*6	*6	*6	*6	*6	*6	*6
CAP STOP	O	Pin (71) of IC501 on MA-62 board	L	H	H	H	L	L	H	L	L	L	H	H	L	L	L	L	H
CAP RVS	O	Pin (72) of IC501 on MA-62 board	H	H			L	H	H/L	L	H	L	L	L/*9	L	L	H	L	L
CAP DA *8	O	Pin (73) of IC501 on MA-62 board																	
T SENS	I	Pin ㉑ of IC501 on MA-62 board	*7	*4	*4	*4	*7	*7	*7	*7	*7	*7	*7	*7	*7	*7	*7	*7	*7
S SENS	I	Pin ㉒ of IC501 on MA-62 board	*7	*4	*4	*4	*7	*7	*7	*7	*7	*7	*7	*7	*7	*7	7	*7	*7

*1. "H": when mechanical mode shifted.
*2. "L": when erasure protection tab is removed, "H": when not removed.
*3. Cycle pulse proportional to reel rotation speed.
*4. Approx. 2 msec cycle "H" pulse.
*5. "H": normally.
*6. Input terminal for capstan constant voltage driving. Used for FF/REW, cassette loading/unloading, etc.
*7. "L": normally. 2 msec cycle "H" pulse: when tape top or end is detected.
*8. Tri-state output of "H", "L" and "HI-Z (2.5V)".
*9. Tape running pulse

3-9. SYSTEM CONTROL — SYSTEM CONTROL PERIPHERAL CIRCUIT INTERFACE

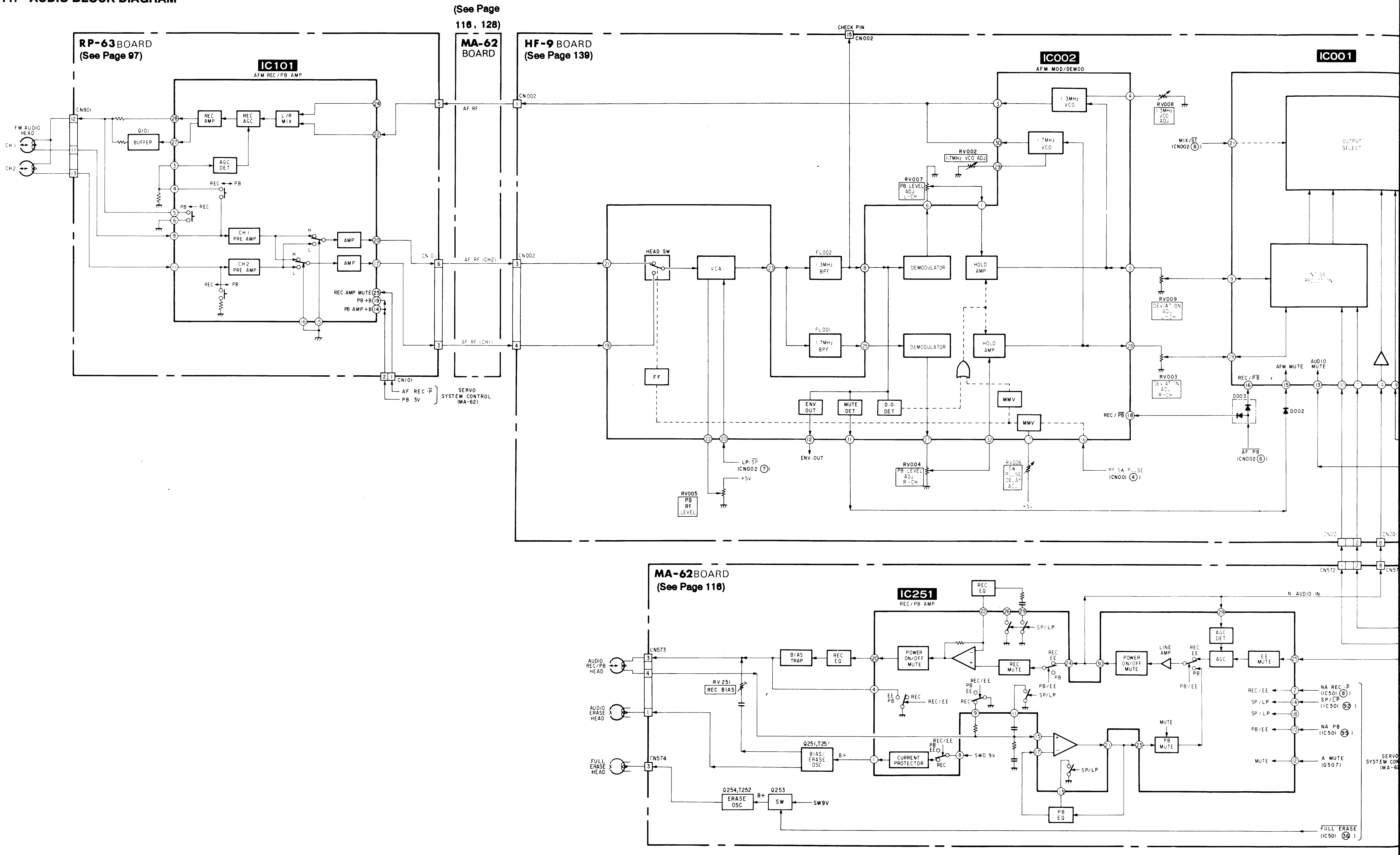
Signal	I/O	Pin No.	Input/output level
$\overline{\text{COSMO·RESET}}$	I	Pin ㊵ of IC501 on MA-62 board	"H": normally. "L": when power failure detected or power failure restored.
$\overline{\text{COSMO·CS}}$	I	Pin ㊹ of IC501 on MA-62 board	Chip select signal from timer micro computer. V cycle "L" pulse.
SI·BUS	I	Pin ㊺ of IC501 on MA-62 board	Serial communication data from timer micro computer. V cycle "L" pulse.
SO·BUS	O	Pin ㊻ of IC501 on MA-62 board	Serial communication data to timer micro computer. V cycle "L" pulse.
S CLK	I	Pin ㊼ of IC501 on MA-62 board	Serial communication clock with timer micro computer. V cycle "L" pulse.
S IN 2	I	Pin (79) of IC501 on MA-62 board	Serial communication data from INDEX IC. 8 msec cycle "L" pulse.
S OUT 2	O	Pin (80) of IC501 on MA-62 board	Serial communication data to INDEX IC. 8 msec cycle "L" pulse.
S CLK 2	O	Pin (81) of IC501 on MA-62 board	Serial communication clock to INDEX IC. 8 msec cycle "L" pulse.
INDEX $\overline{\text{CS}}$	O	Pin (82) of IC501 on MA-62 board	Chip select signal to INDEX IC. 8 msec cycle "L" pulse.

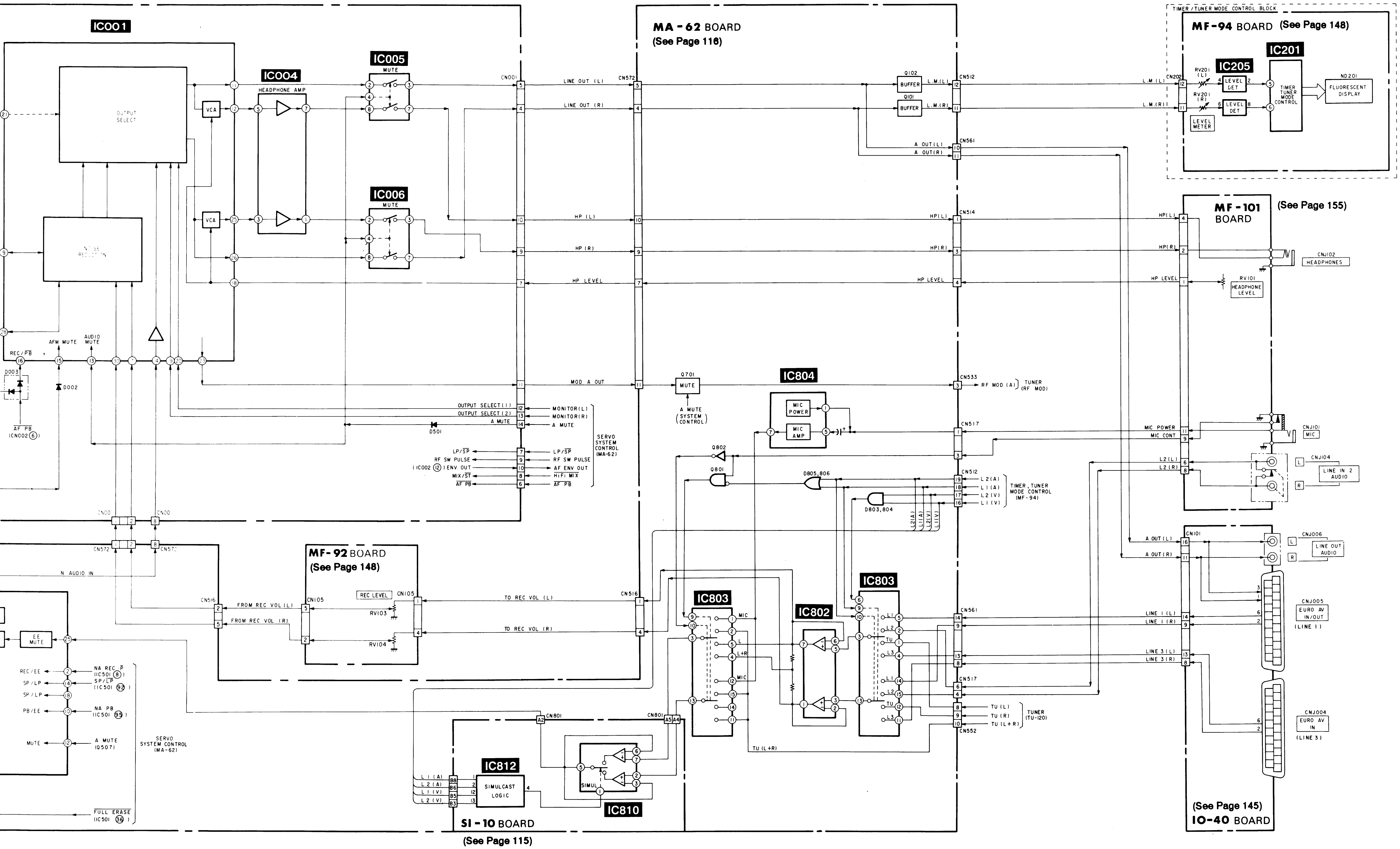
3-10. SYSTEM CONTROL — AUDIO BLOCK INTERFACE

Signal	Mode I/O	Pin No.	STOP/ FF/REW	TAPE LOADING	TAPE UNLOADING	PB	PB· PAUSE	SLOW	×2	CUE	REVIEW	REC	REC· PAUSE	INSERT	INSERT· PAUSE
$\overline{\text{AF PB}}$	O	Pin (96) of IC501 on MA-62 board	H	H	H	L	L	L	L	L	L	H	H	*1	H
MONI (L)	O	Pin ⑩ of IC501 on MA-62 board	*1	*1	*1	*1	*1	*1	*1	*1	*1	*1	*1	*1	*1
MONI (R)	O	Pin ⑨ of IC501 on MA-62 board	*1	*1	*1	*1	*1	*1	*1	*1	*1	*1	*1	*1	*1
AF ENVELOP	I	Pin (61) of IC501 on MA-62 board													
NA·PB	O	Pin (95) of IC501 on MA-62 board	L	L	L	H	H	H	H	H	H	L	L	*1	L
$\overline{\text{A MUTE}}$	O	Pin ㊳ of IC501 on MA-62 board	L	L	L	*4	H	H	H	H	H	H	H	H	H
SP·2	O	Pin (92) of IC501 on MA-62 board	*2	*2	*2	*3	*3	*3	*3	*3	*3	*2	*2	*3	*3
REC·$\overline{\text{P}}$	O	Pin ⑤ of IC501 on MA-62 board	L	L	L	L	L	L	L	L	L	H	L	H	L

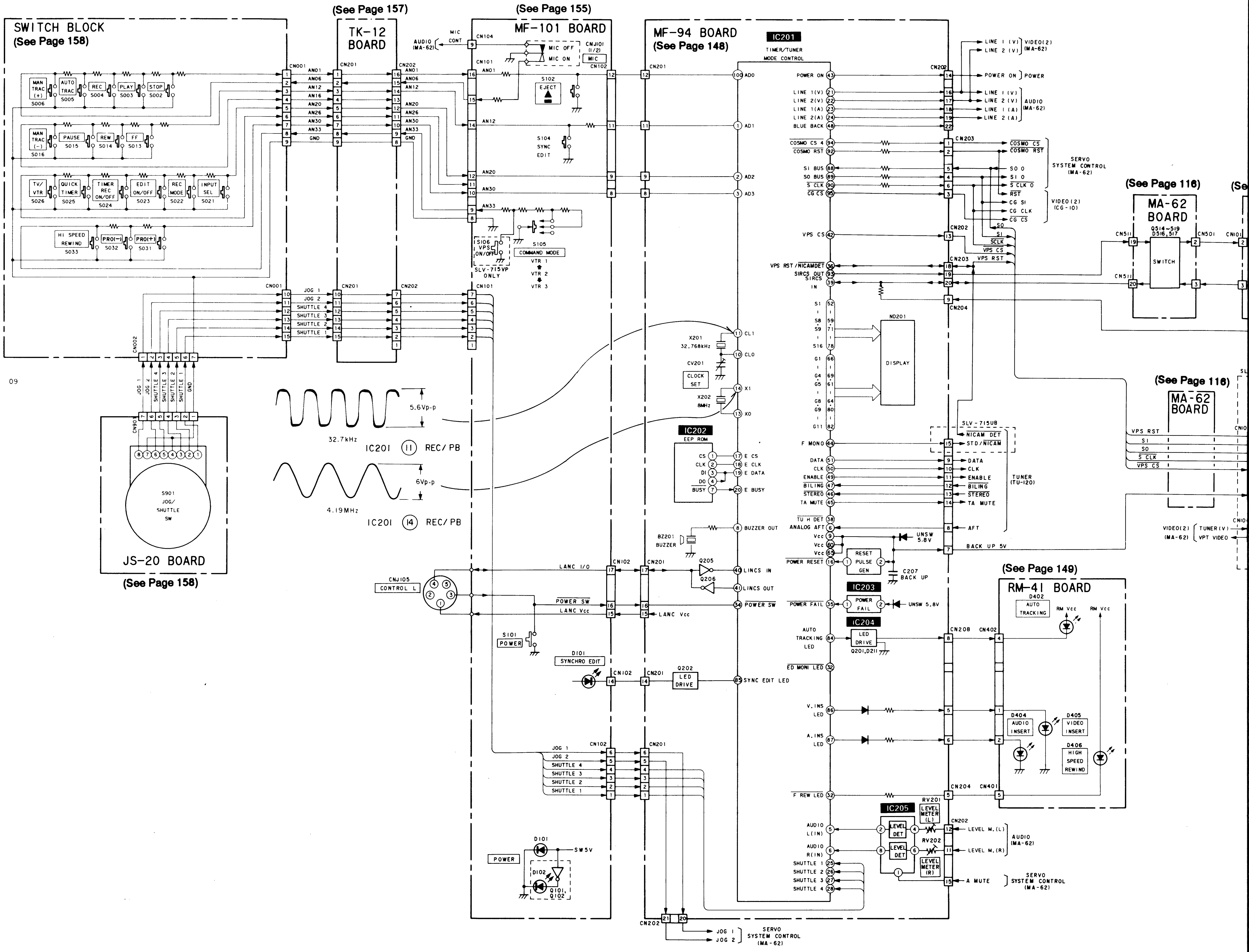
*1. According to audio monitor
*2. According to SP/LP selector. "L": SP mode, "H": LP mode.
*3. According to tape REC mode. "L": SP mode, "H": LP mode.
*4. "H": when CTL signal is not played back.

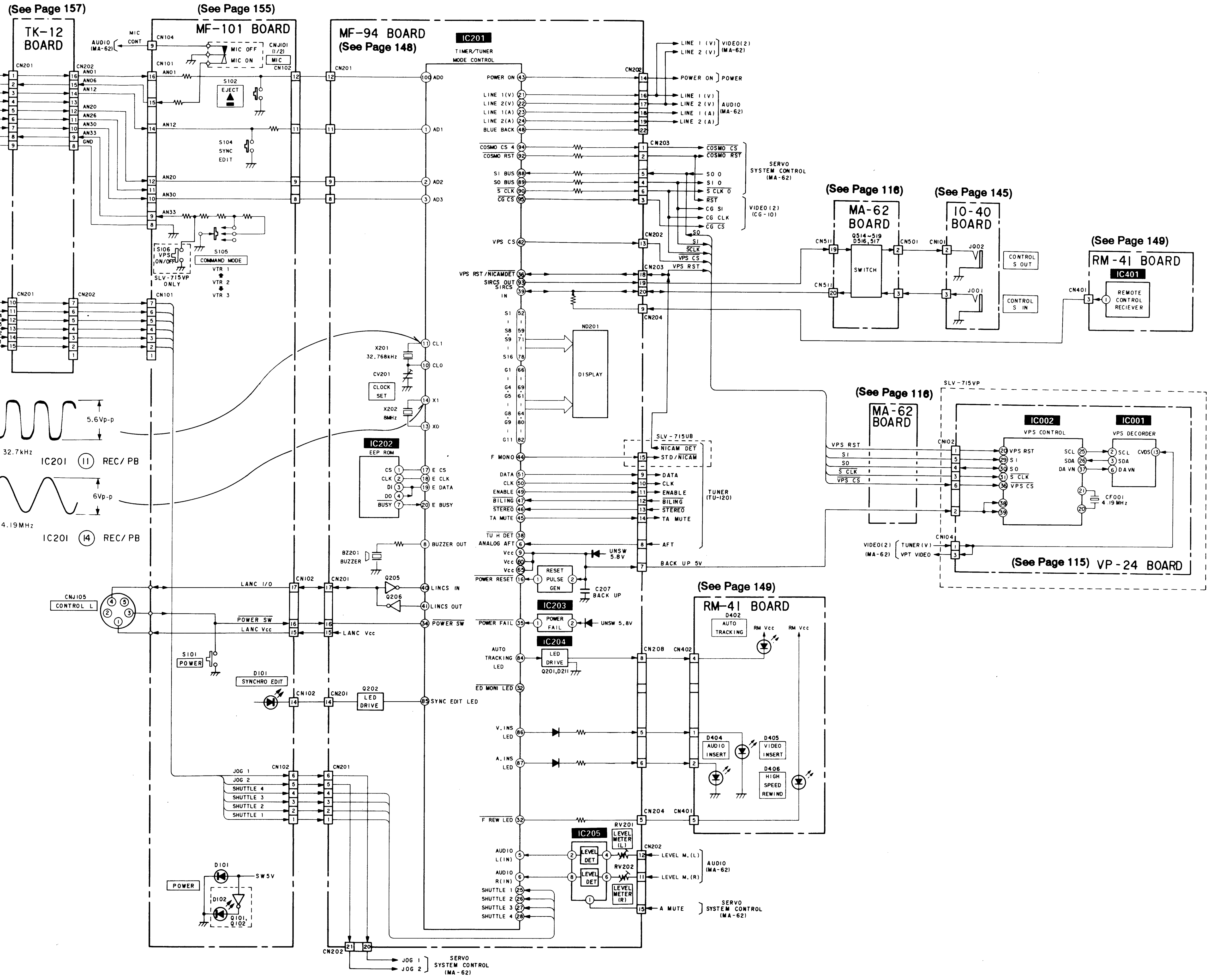
3-11. AUDIO BLOCK DIAGRAM


(See Page 116, 128)
MA-62 BOARD
RP-63 BOARD
(See Page 97)
IC101
AFM REC/PB AMP
CN801
FM AUDIO HEAD
CH 1
CH 2
REC AMP
REC AGC
L/R MIX
Q101
BUFFER
AGC DET
REC ← PB
PB ← REC
CH1 PRE AMP
CH2 PRE AMP
AMP
H
L
REC ← PB
REC AMP MUTE
PB +B
PB AMP +B
CN101
AF REC·P̄
PB 5V
SERVO SYSTEM CONTROL (MA-62)
AF RF
AF RF (CH2)
AF RF (CH1)
HF-9 BOARD
(See Page 139)
CN002
CHECK PIN
IC002
AFM MOD/DEMOD
1.3MHz VCO
1.7MHz VCO
RV002
1.7MHz VCO ADJ
RV007
PB LEVEL ADJ L-CH
RV008
1.3MHz VCO ADJ
HEAD SW
VCA
FL002
1.3MHz BPF
FL001
1.7MHz BPF
DEMODULATOR
HOLD AMP
FF
ENV OUT
MUTE DET
D.O. DET
MMV
ENV. OUT
LP/SP̄ (CN002 ⑦)
+5V
RV005
PB RF LEVEL
RV004
PB LEVEL ADJ R-CH
RV006
SW PULSE DELAY ADJ
RF SW PULSE (CN001 ④)
RV009
DEVIATION ADJ L-CH
RV003
DEVIATION ADJ R-CH
REC/PB̄
IC001
MIX/ST̄ (CN002 ⑧)
OUTPUT SELECT
NOISE REDUCTION
AFM MUTE
AUDIO MUTE
D003
D002
AF PB (CN002 ⑥)
CN572
CN571
MA-62 BOARD
(See Page 116)
IC251
REC/PB AMP
N AUDIO IN
REC EQ
SP/LP
CN573
AUDIO REC/PB HEAD
AUDIO ERASE HEAD
FULL ERASE HEAD
CN574
BIAS TRAP
RV251
REC BIAS
POWER ON/OFF MUTE
REC MUTE
REC EE PB
REC/EE
PB/EE
LINE AMP
AGC DET
AGC
EE MUTE
Q251, T251
BIAS/ERASE OSC
B+
CURRENT PROTECTOR
SWD 9V
MUTE
PB MUTE
PB EQ
Q254, T252
ERASE OSC
Q253
SW
SW9V
NA REC·P̄ (IC501 ⑧)
SP/LP̄ (IC501 92)
NA PB (IC501 95)
A MUTE (Q507)
FULL ERASE (IC501 56)
SERVO SYSTEM CON (MA-6

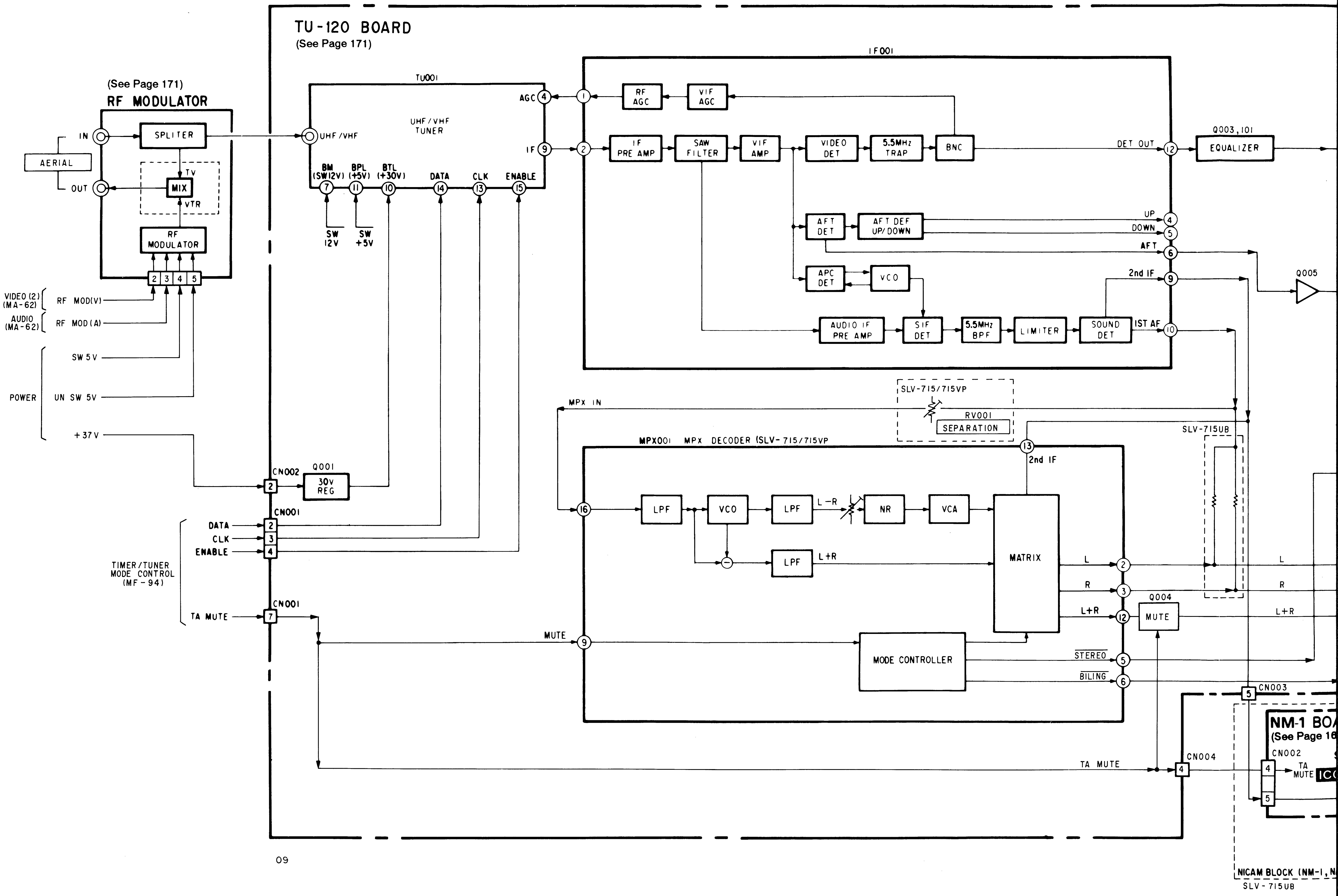

IC001
OUTPUT SELECT
NOISE REDUCTION
IC004
HEADPHONE AMP
VCA
IC005
MUTE
IC006
MUTE
CN001
LINE OUT (L)
LINE OUT (R)
HP (L)
HP (R)
HP LEVEL
MOD A OUT
OUTPUT SELECT (1)
OUTPUT SELECT (2)
A MUTE
D501
MONITOR(L)
MONITOR(R)
A MUTE
SERVO SYSTEM CONTROL (MA-62)
LP/SP
RF SW PULSE
(IC002 ⑫) ENV OUT
MIX/ST
AF PB
AF ENV OUT
HiFi MIX
AFM MUTE
AUDIO MUTE
REC/PB
D003
D002
AF PB (CN002 ⑥)
N AUDIO IN
CN572
CN516
FROM REC VOL (L)
FROM REC VOL (R)
MF-92 BOARD
(See Page 148)
CN105
REC LEVEL
RV103
RV104
TO REC VOL (L)
TO REC VOL (R)
EE MUTE
REC/EE
SP/LP
PB/EE
MUTE
NA REC P (IC501 ⑧)
SP/LP (IC501 92)
NA PB (IC501 95)
A MUTE (Q507)
SERVO SYSTEM CONTROL (MA-62)
FULL ERASE (IC501 56)
MA-62 BOARD
(See Page 116)
Q102
Q101
BUFFER
L.M.(L)
L.M.(R)
CN512
CN561
A OUT(L)
A OUT(R)
CN514
HP(L)
HP(R)
HP LEVEL
Q701
MUTE
A MUTE (SYSTEM CONTROL)
IC804
MIC POWER
MIC AMP
CN533
RF MOD (A)
TUNER (RF MOD)
CN517
Q802
Q801
D805,806
D803,804
L2(A)
L1(A)
L2(V)
L1(V)
TIMER, TUNER MODE CONTROL (MF-94)
IC803
IC802
MIC
L
L+R
L1
L2
TU
L3
TU (L+R)
LINE 1 (L)
LINE 1 (R)
LINE 3 (L)
LINE 3 (R)
CN552
TU (L)
TU (R)
TU (L+R)
TUNER (TU-120)
CN801
IC812
SIMULCAST LOGIC
IC810
SIMUL
SI-10 BOARD
(See Page 115)
TIMER/TUNER MODE CONTROL BLOCK
MF-94 BOARD (See Page 148)
IC201
IC205
CN202
RV201 (L)
RV201 (R)
LEVEL DET
LEVEL METER
TIMER TUNER MODE CONTROL
ND201
FLUORESCENT DISPLAY
MF-101 BOARD
(See Page 155)
CNJ102
HEADPHONES
RV101
HEADPHONE LEVEL
MIC POWER
MIC CONT
CNJ101
MIC
CNJ104
LINE IN 2 AUDIO
L2(L)
L2(R)
CN101
CNJ006
LINE OUT AUDIO
CNJ005
EURO AV IN/OUT
(LINE 1)
CNJ004
EURO AV IN
(LINE 3)
(See Page 145)
IO-40 BOARD

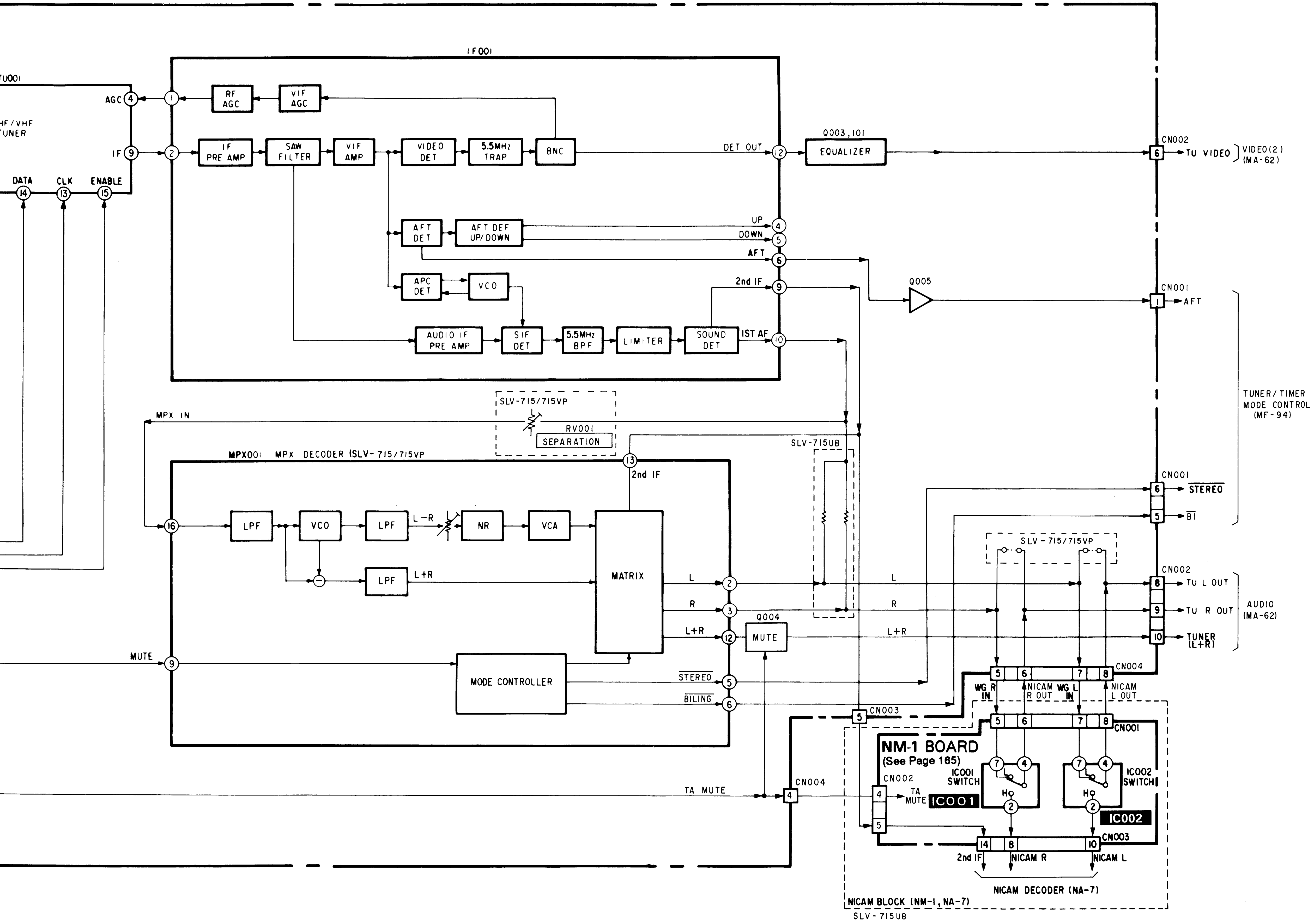
3-12. TIMER, TUNER, MODE CONTROL BLOCK DIAGRAM


SWITCH BLOCK
(See Page 158)
(See Page 157)
TK-12 BOARD
(See Page 155)
MF-101 BOARD
MF-94 BOARD
(See Page 148)
IC201
TIMER/TUNER MODE CONTROL
IC202
EEP ROM
IC203
POWER FAIL
IC204
LED DRIVE
IC205
LEVEL DET
RESET PULSE GEN
ND201
DISPLAY
JS-20 BOARD
(See Page 158)
S901 JOG/SHUTTLE SW
MAN TRAC (+) S006
AUTO TRAC S005
REC S004
PLAY S003
STOP S002
MAN TRAC (−) S016
PAUSE S015
REW S014
FF S013
TV/VTR S026
QUICK TIMER S025
TIMER REC ON/OFF S024
EDIT ON/OFF S023
REC MODE S022
INPUT SEL S021
HI SPEED REWIND S033
PRO(−) S032
PRO(+) S031
AN01
AN06
AN12
AN16
AN20
AN26
AN30
AN33
GND
JOG 1
JOG 2
SHUTTLE 4
SHUTTLE 3
SHUTTLE 2
SHUTTLE 1
MIC OFF
MIC ON
S102 EJECT
S104 SYNC EDIT
S105 COMMAND MODE
VTR 1
VTR 2
VTR 3
S106 VPS ON/OFF
SLV-715VP ONLY
5.6Vp-p
32.7kHz
IC201 ⑪ REC/PB
6Vp-p
4.19MHz
IC201 ⑭ REC/PB
X201 32.768kHz
CV201 CLOCK SET
X202 8MHz
CNJ105 CONTROL L
LANC I/O
POWER SW
LANC Vcc
S101 POWER
D101 SYNCHRO EDIT
Q202 LED DRIVE
D101
D102
Q101, Q102
SW5V
POWER
BZ201 BUZZER
Q205
Q206
LINCS IN
LINCS OUT
POWER SW
SYNC EDIT LED
BUZZER OUT
E CS
E CLK
E DATA
E BUSY
C207 BACK UP
UNSW 5.8V
POWER ON
LINE 1 (V)
LINE 2 (V)
LINE 1 (A)
LINE 2 (A)
BLUE BACK
COSMO CS 4
COSMO RST
SI BUS
SO BUS
S CLK
CG CS
VPS CS
VPS RST/NICAMDET
SIRCS OUT
SIRCS IN
F MONO
DATA
CLK
ENABLE
BILING
STEREO
TA MUTE
TU H DET
ANALOG AFT
Vcc
POWER RESET
POWER FAIL
AUTO TRACKING LED
ED MONI LED
V. INS LED
A. INS LED
F REW LED
AUDIO L(IN)
AUDIO R(IN)
SHUTTLE 1
SHUTTLE 2
SHUTTLE 3
SHUTTLE 4
VIDEO(2) (MA-62)
POWER
AUDIO (MA-62)
SERVO SYSTEM CONTROL (MA-62)
VIDEO(2) (CG-10)
CG SI
CG CLK
CG CS
TUNER (TU-120)
AFT
BACK UP 5V
SLV-715UB
NICAM DET
STD/NICAM
(See Page 116)
MA-62 BOARD
Q514-519 D516, 517
SWITCH
VPS RST
SI
SO
S CLK
VPS CS
TUNER (V)
VPT VIDEO
(See Page 149)
RM-41 BOARD
D402 AUTO TRACKING
RM Vcc
D404 AUDIO INSERT
D405 VIDEO INSERT
D406 HIGH SPEED REWIND
RV201 LEVEL METER (L)
RV202 LEVEL METER (R)
LEVEL M. (L)
LEVEL M. (R)
A MUTE
JOG 1
JOG 2


(See Page 157)
TK-12 BOARD
(See Page 155)
MF-101 BOARD
MF-94 BOARD
(See Page 148)
IC201
TIMER/TUNER MODE CONTROL
IC202
EEP ROM
IC203
POWER FAIL
IC204
LED DRIVE
IC205
LEVEL DET
RESET PULSE GEN
ND201
DISPLAY
X201 32.768kHz
X202 8MHz
CV201
CLOCK SET
BZ201 BUZZER
S102 EJECT
S104 SYNC EDIT
S105 COMMAND MODE
VTR 1
VTR 2
VTR 3
S106 VPS ON/OFF
SLV-715VP ONLY
S101 POWER
D101 SYNCHRO EDIT
Q202 LED DRIVE
Q205
Q206
CNJ105 CONTROL L
LANC I/O
POWER SW
LANC Vcc
JOG 1
JOG 2
SHUTTLE 4
SHUTTLE 3
SHUTTLE 2
SHUTTLE 1
D101
D102
Q101, Q102
POWER
SW5V
5.6Vp-p
32.7kHz
IC201 ⑪ REC/PB
6Vp-p
4.19MHz
IC201 ⑭ REC/PB
LINE 1 (V)
LINE 2 (V)
VIDEO(2) (MA-62)
POWER ON
POWER
AUDIO (MA-62)
LINE 1 (A)
LINE 2 (A)
BLUE BACK
COSMO CS 4
COSMO RST
SI BUS
SO BUS
S CLK
CG CS
SERVO SYSTEM CONTROL (MA-62)
VIDEO (2) (CG-10)
VPS CS
VPS RST/NICAMDET
SIRCS OUT
SIRCS IN
(See Page 116)
MA-62 BOARD
Q514~519 D516,517
SWITCH
(See Page 145)
IO-40 BOARD
CONTROL S OUT
CONTROL S IN
(See Page 149)
RM-41 BOARD
IC401
REMOTE CONTROL RECIEVER
SLV-715UB
NICAM DET
STD/NICAM
F MONO
DATA
CLK
ENABLE
BILING
STEREO
TA MUTE
TUNER (TU-120)
TU H DET
ANALOG AFT
AFT
BACK UP 5V
UNSW 5.8V
C207 BACK UP
POWER RESET
POWER FAIL
SLV-715VP
IC002
VPS CONTROL
IC001
VPS DECORDER
CF001 4.19MHz
(See Page 115) VP-24 BOARD
TUNER (V)
VPT VIDEO
RM-41 BOARD
D402 AUTO TRACKING
RM Vcc
D404 AUDIO INSERT
D405 VIDEO INSERT
D406 HIGH SPEED REWIND
AUTO TRACKING LED
ED MONI LED
SYNC EDIT LED
V. INS LED
A. INS LED
F REW LED
AUDIO L(IN)
AUDIO R(IN)
RV201 LEVEL METER (L)
RV202 LEVEL METER (R)
LEVEL M. (L)
LEVEL M. (R)
A MUTE
SERVO SYSTEM CONTROL (MA-62)
JOG 1
JOG 2

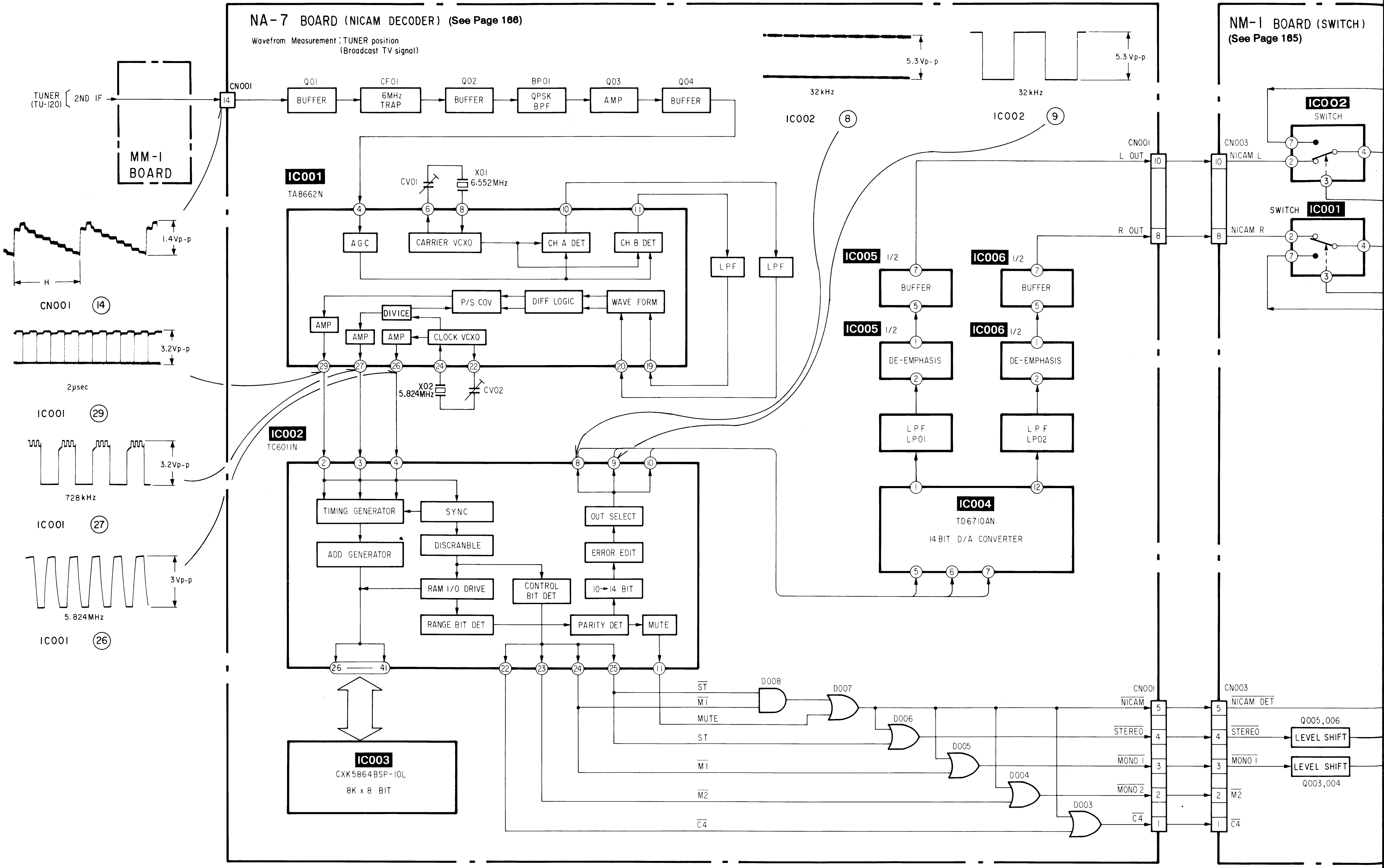
3-13. TUNER BLOCK DIAGRAM


TU-120 BOARD
(See Page 171)
(See Page 171)
RF MODULATOR
IN
OUT
AERIAL
SPLITER
TV
MIX
VTR
RF MODULATOR
2 3 4 5
VIDEO (2) (MA-62)
RF MOD(V)
AUDIO (MA-62)
RF MOD(A)
POWER
SW 5V
UN SW 5V
+37V
TU001
UHF/VHF
UHF/VHF TUNER
AGC
IF
BM (SW12V)
BPL (+5V)
BTL (+30V)
DATA
CLK
ENABLE
SW 12V
SW +5V
CN002
Q001
30V REG
CN001
DATA
CLK
ENABLE
TIMER/TUNER MODE CONTROL (MF-94)
TA MUTE
IF001
RF AGC
VIF AGC
IF PRE AMP
SAW FILTER
VIF AMP
VIDEO DET
5.5MHz TRAP
BNC
DET OUT
Q003,101
EQUALIZER
AFT DET
AFT DEF UP/DOWN
UP
DOWN
AFT
APC DET
VCO
2nd IF
Q005
AUDIO IF PRE AMP
SIF DET
5.5MHz BPF
LIMITER
SOUND DET
IST AF
SLV-715/715VP
RV001
SEPARATION
MPX IN
MPX001 MPX DECODER (SLV-715/715VP
2nd IF
SLV-715UB
LPF
VCO
LPF
L-R
NR
VCA
LPF
L+R
MATRIX
L
R
L+R
Q004
MUTE
MUTE
MODE CONTROLLER
STEREO
BILING
CN003
TA MUTE
CN004
NM-1 BO
(See Page 16
CN002
TA MUTE
IC
NICAM BLOCK (NM-1, N
SLV-715UB
09

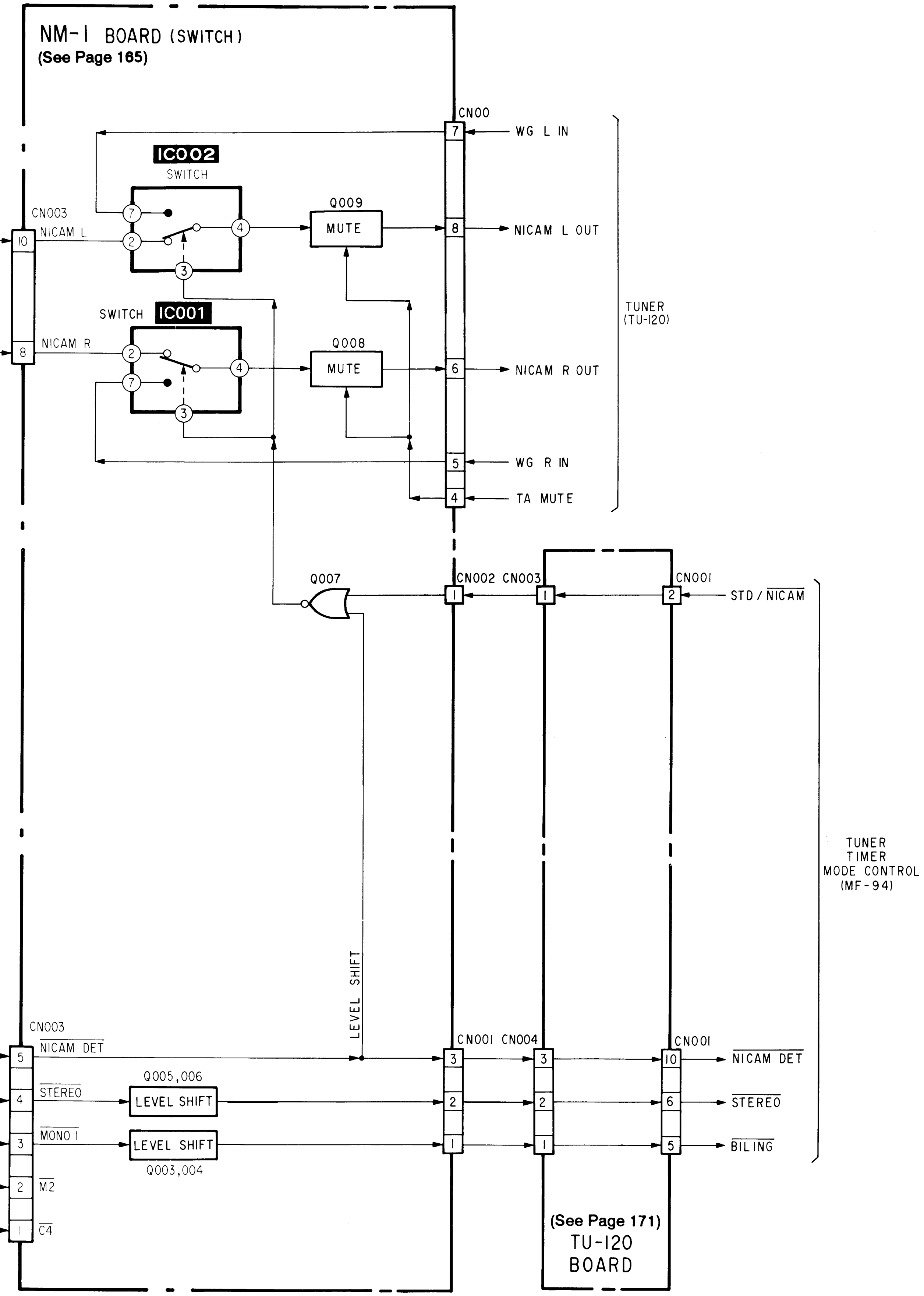


TU001
VHF/VHF TUNER
AGC ④
IF ⑨
DATA ⑭
CLK ⑬
ENABLE ⑮
IF001
RF AGC
VIF AGC
IF PRE AMP
SAW FILTER
VIF AMP
VIDEO DET
5.5MHz TRAP
BNC
DET OUT
AFT DET
AFT DEF UP/DOWN
UP
DOWN
AFT
APC DET
VCO
2nd IF
AUDIO IF PRE AMP
SIF DET
5.5MHz BPF
LIMITER
SOUND DET
IST AF
Q003, 101
EQUALIZER
Q005
CN002
TU VIDEO
VIDEO(2) (MA-62)
CN001
AFT
TUNER/TIMER MODE CONTROL (MF-94)
MPX IN
SLV-715/715VP
RV001
SEPARATION
MPX001 MPX DECODER (SLV-715/715VP
2nd IF
LPF
VCO
LPF
L−R
NR
VCA
LPF
L+R
MATRIX
L
R
L+R
Q004
MUTE
MUTE
MODE CONTROLLER
STEREO
BILING
SLV-715UB
CN001
STEREO
BI
SLV-715/715VP
CN002
TU L OUT
TU R OUT
TUNER (L+R)
AUDIO (MA-62)
CN004
WG R IN
NICAM R OUT
WG L IN
NICAM L OUT
CN003
CN001
NM-1 BOARD
(See Page 165)
IC001 SWITCH
IC002 SWITCH
CN002
TA MUTE
IC001
IC002
H
CN003
2nd IF
NICAM R
NICAM L
NICAM DECODER (NA-7)
NICAM BLOCK (NM-1, NA-7)
SLV-715UB
TA MUTE
CN004

3-14. NICAM BLOCK DIAGRAM (SLV-715UB only)


NA-7 BOARD (NICAM DECODER) (See Page 166)
Wavefrom Measurement : TUNER position
(Broadcast TV signal)
TUNER (TU-120)
2ND IF
MM-1 BOARD
CN001
14
Q01
BUFFER
CF01
6MHz TRAP
Q02
BUFFER
BP01
QPSK BPF
Q03
AMP
Q04
BUFFER
5.3Vp-p
32kHz
IC002 ⑧
5.3Vp-p
32kHz
IC002 ⑨
1.4Vp-p
H
CN001 ⑭
3.2Vp-p
2μsec
IC001 ㉙
3.2Vp-p
728kHz
IC001 ㉗
3Vp-p
5.824MHz
IC001 ㉖
IC001
TA8662N
CV01
X01
6.552MHz
AGC
CARRIER VCXO
CH A DET
CH B DET
LPF
LPF
P/S COV
DIFF LOGIC
WAVE FORM
DIVICE
AMP
AMP
AMP
CLOCK VCXO
X02
5.824MHz
CV02
IC002
TC6011N
TIMING GENERATOR
SYNC
ADD GENERATOR
DISCRANBLE
RAM I/O DRIVE
CONTROL BIT DET
RANGE BIT DET
PARITY DET
MUTE
OUT SELECT
ERROR EDIT
10→14 BIT
26 — 41
IC003
CXK5864BSP-10L
8K x 8 BIT
IC005 1/2
BUFFER
IC005 1/2
DE-EMPHASIS
IC006 1/2
BUFFER
IC006 1/2
DE-EMPHASIS
LPF
LP01
LPF
LP02
IC004
TD6710AN
14BIT D/A CONVERTER
D008
D007
D006
D005
D004
D003
ST
M1
MUTE
ST
M1
M2
C4
CN001
L OUT
R OUT
NICAM
STEREO
MONO 1
MONO 2
C4
NM-1 BOARD (SWITCH)
(See Page 165)
IC002
SWITCH
CN003
NICAM L
SWITCH IC001
NICAM R
CN003
NICAM DET
STEREO
MONO 1
M2
C4
Q005,006
LEVEL SHIFT
LEVEL SHIFT
Q003,004

09


NM-I BOARD (SWITCH)
(See Page 185)
CN003
NICAM L
10
IC002
SWITCH
Q009
MUTE
SWITCH
IC001
NICAM R
8
Q008
MUTE
CN00
7
WG L IN
8
NICAM L OUT
6
NICAM R OUT
5
WG R IN
4
TA MUTE
TUNER
(TU-120)
Q007
CN002 CN003
CN001
STD / NICAM
LEVEL SHIFT
CN003
NICAM DET
5
STEREO
4
MONO I
3
2
M2
1
C4
Q005,006
LEVEL SHIFT
LEVEL SHIFT
Q003,004
CN001 CN004
CN001
NICAM DET
STEREO
BILING
TUNER
TIMER
MODE CONTROL
(MF-94)
(See Page 171)
TU-120
BOARD

3-15. NICAM (NEAR INSTANTANEOUS COMPAND SYSTEM) (SLV-715UB only)

NICAM, or NICAM 728 which refers to its bit rate,stands for 14-to-10 bit Near Instantaneous Compand System which executes signal processing of PCM, employing the television's PCM sound multiplex broadcast system. By utilizing digital method for TV sound multiplex bradcasting, the following types of broadcasts are accomplished which heretofore were impossible to achieve with analog multiplex broadcasting.

1) High quality sound broadcast independent from FM sound (analog).
2) Data broadcast, while retaining the compatibility of receiving equipment. Tackles future diversification to facsimile broadcast, etc.

3-15-1. NICAM Standard

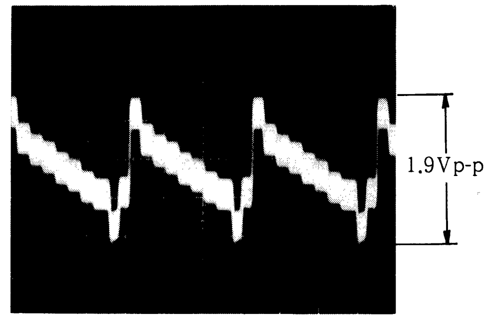
		SYSTEM-B/G Europe, etc.	SYSTEM-2 UK
Analog sound (Conventional mono 1ch TV sound)	Modulation method	FM	
	Sub-carrier frequency	5.5 MHz	6.0 MHz
	Signal level (image: FM)	20:1	10:1
Digital sound (NICAM)	Modulation method	DOPSK	
	Sub-carrier frequency	5.850 MHz	6.552 MHz
	Signal level (image: FM)	100:1	
	Bit rate	728K 6PS	
	Sampling frequency	32 kHz	
	Quantized bit count	14 bit	
	Compression/ expansion	10-to-14 bit ELONGATION COMPAND	
	Digital sound channels	2-CH	

3-15-2. NICAM Receiving System

The RF signal that is input from ANT is selected, amplified, & IF converted by the tuner; and it then enters VIF. At VIF, it is input into the image detection circuit for acquiring FM signal & OPSK signal as intercarrier; as well as into its parallel image detection circuit for reproducing image signal. To acquire QPSK signal of superior quality, quasi-parallel tone method is employed here. The QPSK signal that is output from VIF passes though QPSK DEMOD, PCM decoder, & D/A converter; then enters audio SW block, and is finally output as L, R signals.

3-15-3. Description of NA-7 Board (NICAM Decoder)

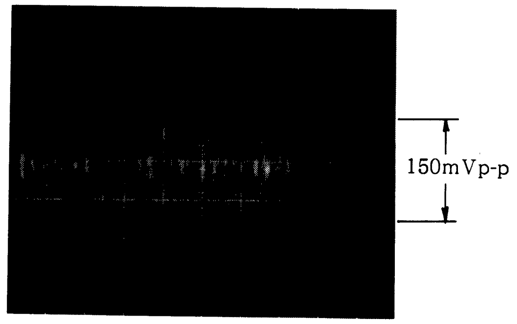
The 2nd IF signal that is output from Pin ⑨ of IF block passes through NM-1 board substrate, and enters Pin ⑭ of CN01 on NA-7 board (Fig. 1.).



2nd IF signal
(Pin ⑭ of CN01)

Fig. 1.

Here, the 2nd IF signal is superimposed with video signal & FM carrier 5.5 MHz [∗6.0 MHz] signal, aside from QPSK signal. After passing through buffer Q01, the Pin ⑭ 2nd IF signal is FM trapped (CF01), and then passes through QPSK BPF (BP01) where its unwanted signal is eliminated. Next, it is undergoes level adjustment by AMP Q03 (about 13 dB), and is then iuput into QPSK demodulation IC IC01, Pin ④ (Fig. 2.).



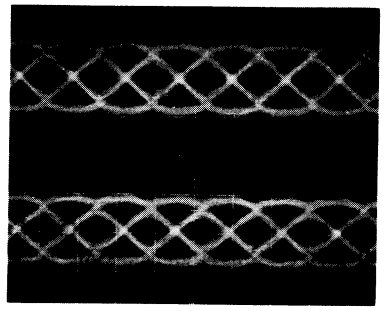
QPSK signal
(Pin ④ of IC01)

Fig. 2.

The input level at Pin ④ is 150 mVp-p for standerd signal (P/S2=20 dB).

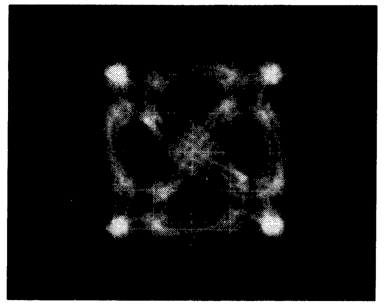
After passing through AGC, the signal that is input from Pin ④ is subject to phase synchronization detection by two VCXO, that is by a signal which is phase synchronized with 2nd IF carrier 5.58 MHz [∗6.552 MHz] and a signal whose phase is 180° different from it; next it is output as eye pattern through Pins ⑩, ⑪ from where it then passes through the prescribed base bank LPF, and is once again input into IC01.

The signal entering Pins ⑲, ⑳ (Fig. 3-1.) passes through wave shaper, difference logic, parallel to serial conversion; and is then output through Pin ㉙ as PCM data.



Eye pattern
(Pin ⑲ of IC01 up,
Pin ⑳ of IC01 down)

Fig. 3-1.

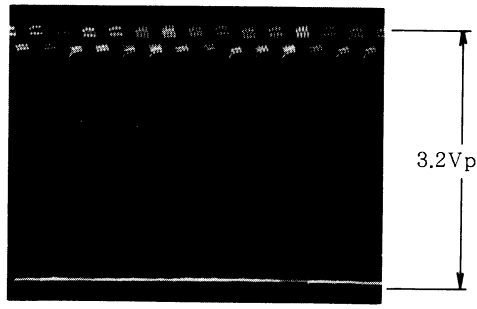


Eye pattern
(X-Y wave of Fig. 3-1.)

Fig. 3-2.

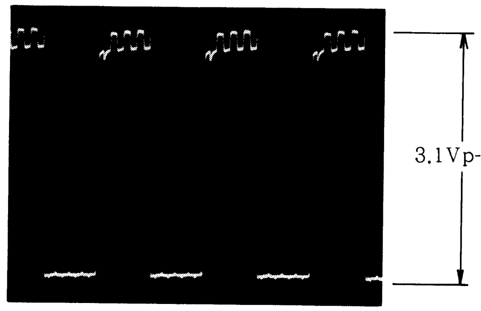
Similarly, PCM master clock 5.824 MHz is output through Pin㉖, and its 1/8th 728kHz bit clock through Pin ㉗.

The PCM data & clocks that are output through Pins ㉖ (Fig. 6.), ㉗ (Fig. 5.), ㉙ (Fig. 4.) of IC01 are input into the next PCM decoder IC02.



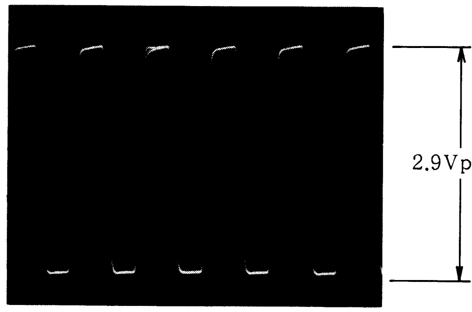
PCM data
(Pin ㉙ of IC01)

Fig. 4.



728 kHz bit clock
(Pin ㉗ of IC01)

Fig. 5.

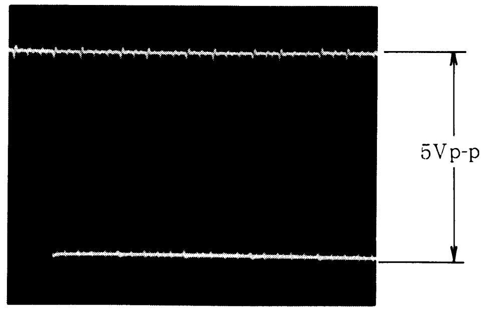


5.824 MHz master clock
(Pin ㉖ of IC01)

Fig. 6.

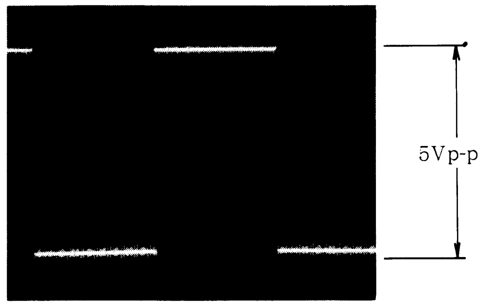
The PCM decoder executes various signal processing, like, descramble, deinterleave, range bit detection, 10-to-14 bit elongation, error compensation, muting, and so on.

As a result of the various signal processing executed by IC02, identification signal as well as the shift clock (Fig. 9.), work clock (Fig. 8.), DA data (Fig. 7.), etc. that is needed by D/A converter are output.



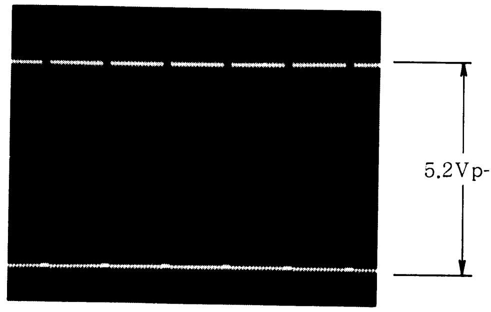
DA data
(Pin ⑩ of IC02)

Fig. 7.



Word clock
(Pin ⑨ of IC02)

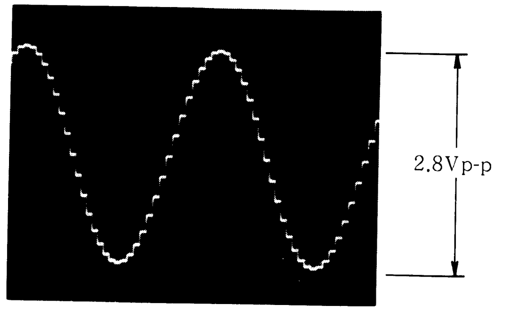
Fig. 8.



Sift clock
(Pin ⑧ of IC02)

Fig. 9.

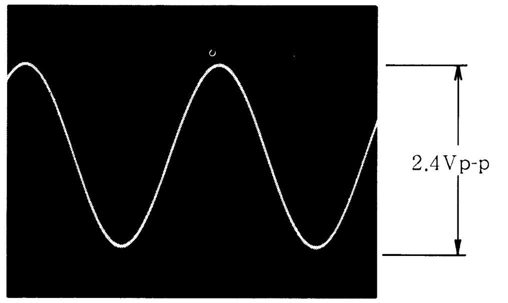
At IC04, the input DA data, after passing through integrator and sample-hold circuit, is convertedinto analog signal by a 14-bit 2ch D/A converter; and is then output through Pin ① Lch (Fig. 10.), Pin ⑫ Rch (Fig. 10.).



D/A audio out
(Pins ①, ⑫ of IC04)

Fig. 10.

After passing through L.P.F., the L, R signal passes through buffer and de-emphasis circuit that is composed of IC05, IC06; and is then output as CN01 Pin ⑩ L (Fig. 11.), Pin ⑧ R (Fig.11.) signal.



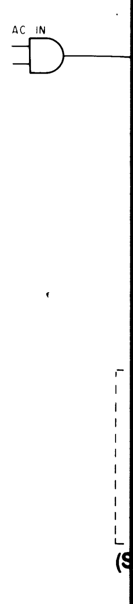
Audio out
(Pins ⑧, ⑩ of IC01)

Fig. 11.

Identification signal is prepared with a combination of ST, M, MUTE signal; and it is then input into IC201 on MF-94 board.

* Frequency shown in [ ] is UK board value.

3-16. PO



tegrator and
by a 14-bit
① Lch (Fig.

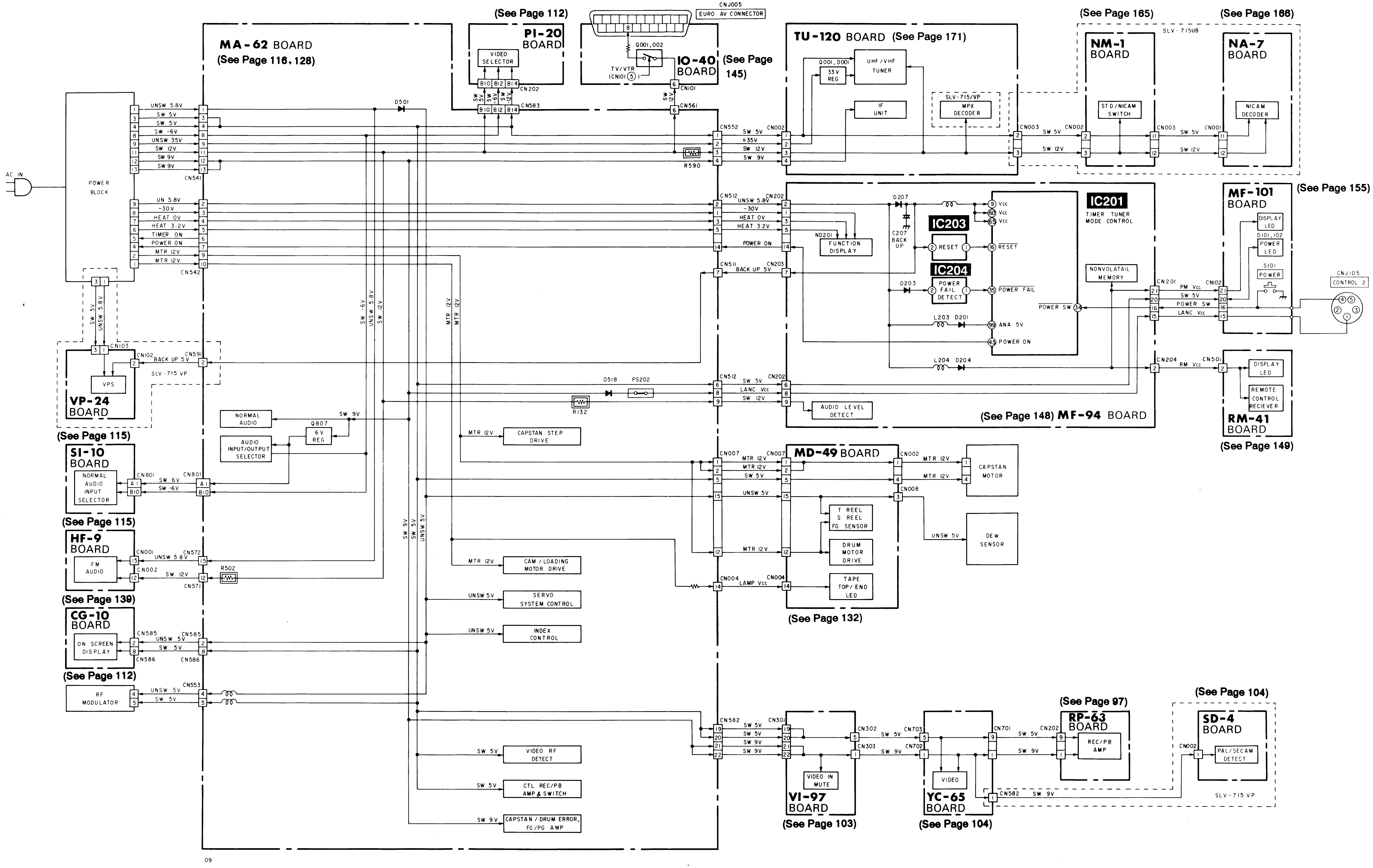
2.8Vp-p

ses through
C05, IC06;
R (Fig.11.)

2.4Vp-p

of ST, M,
4 board.

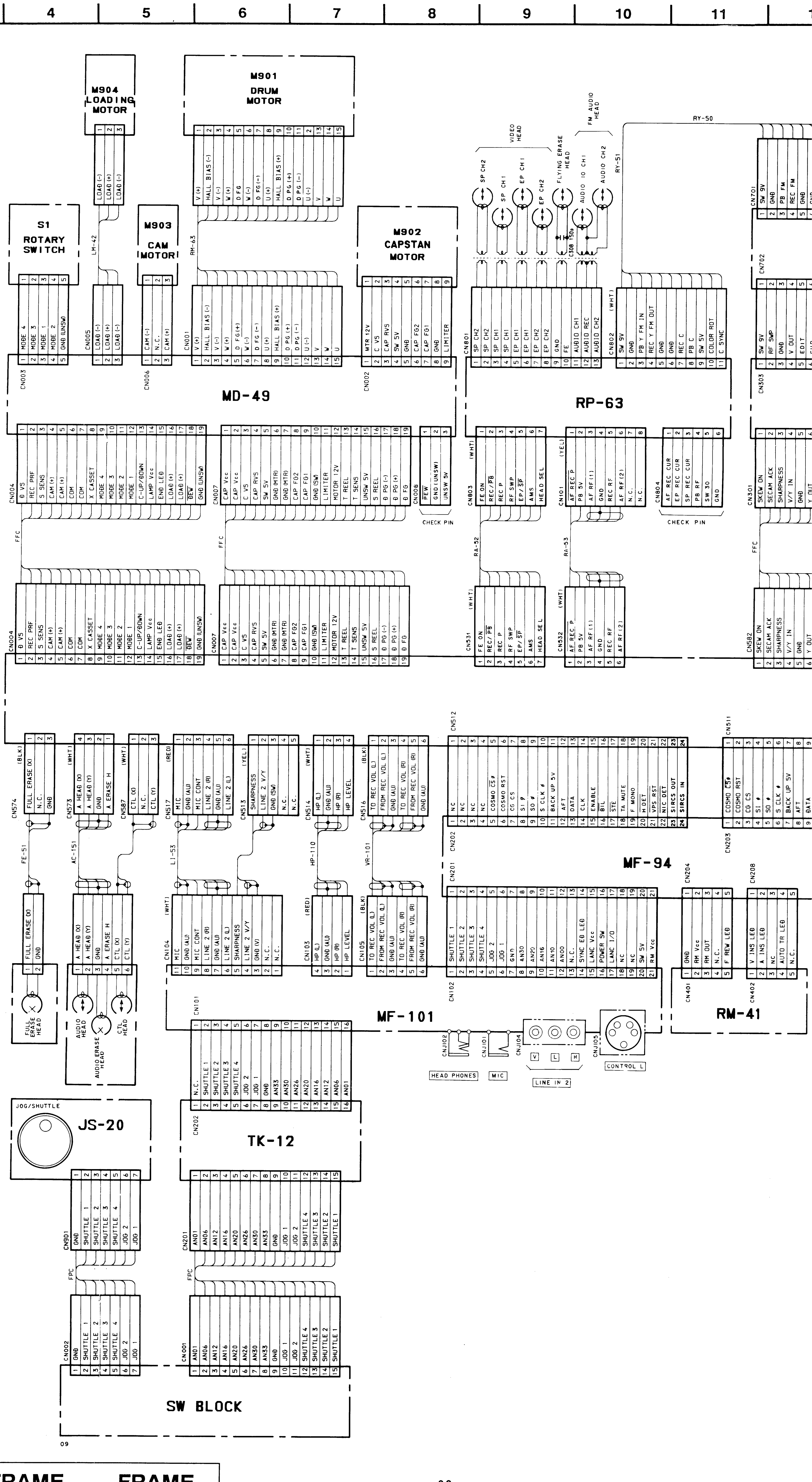
3-16. POWER BLOCK DIAGRAM

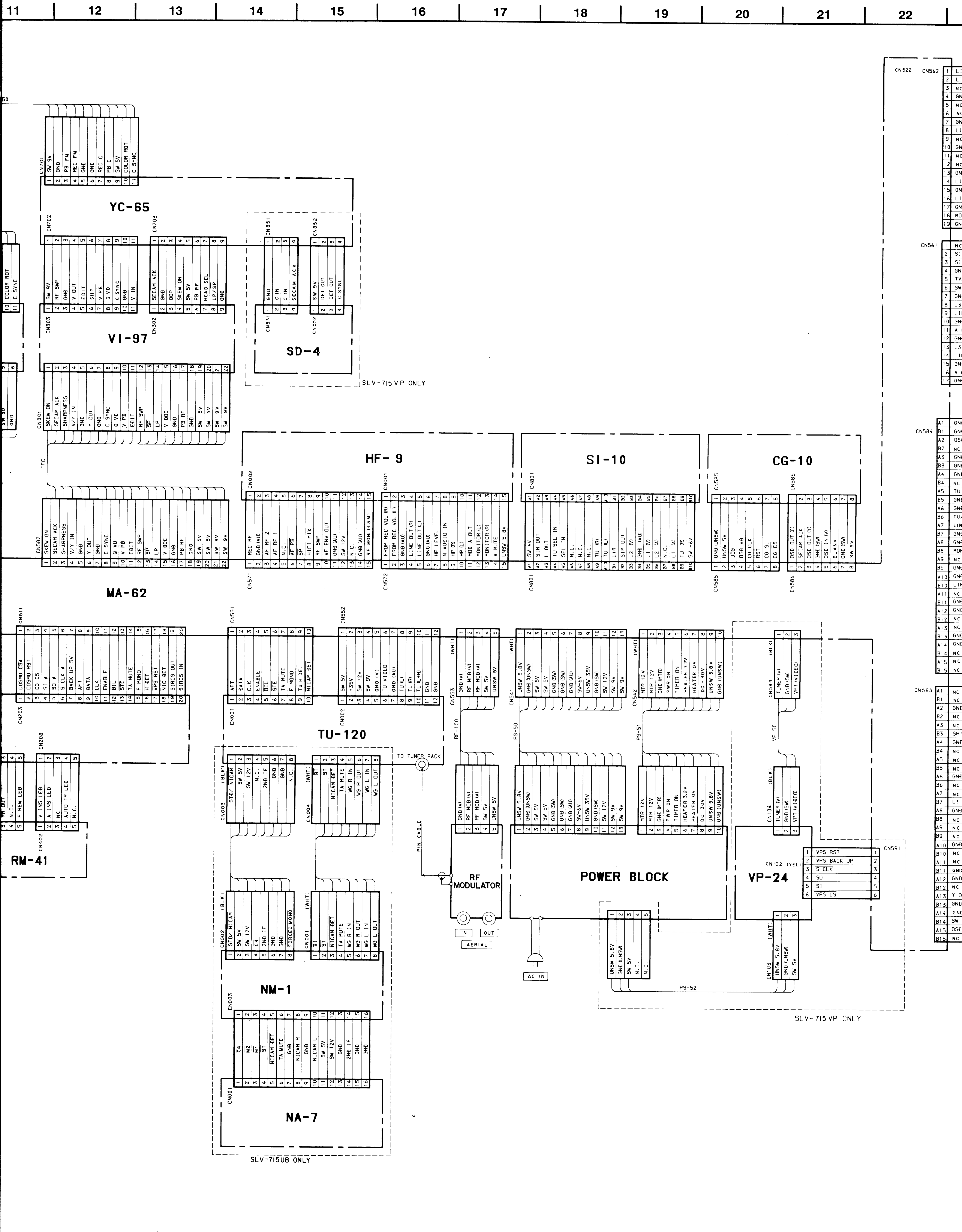


MA-62 BOARD
(See Page 116, 128)
AC IN
POWER BLOCK
UNSW 5.8V
SW 5V
SW 5V
SW -6V
UNSW 35V
SW 12V
SW 9V
SW 9V
CN541
UN 5.8V
-30V
HEAT 0V
HEAT 3.2V
TIMER ON
POWER ON
MTR 12V
MTR 12V
CN542
D501
(See Page 112)
PI-20 BOARD
VIDEO SELECTOR
B10 B12 B14
CN202
CN583
SW 5V
SW -6V
SW 12V
CN J005
EURO AV CONNECTOR
Q001, 002
TV/VTR (CN101 ⑤)
IO-40 BOARD
(See Page 145)
CN101
CN561
R590
CN552
SW 5V
+35V
SW 12V
SW 9V
CN002
TU-120 BOARD (See Page 171)
Q001, D001
33V REG
UHF/VHF TUNER
IF UNIT
SLV-715/VP
MPX DECODER
CN003
(See Page 165)
NM-1 BOARD
SLV-715UB
STD/NICAM SWITCH
(See Page 166)
NA-7 BOARD
NICAM DECODER
CN001
CN512
CN202
UNSW 5.8V
-30V
HEAT 0V
HEAT 3.2V
POWER ON
ND201
FUNCTION DISPLAY
CN511
CN203
BACK UP 5V
D207
C207 BACK UP
IC203
RESET
IC204
POWER FAIL DETECT
D203
L203 D201
IC201
TIMER TUNER MODE CONTROL
Vcc
RESET
POWER FAIL
ANA 5V
POWER ON
POWER SW
NONVOLATAIL MEMORY
CN201
PM Vcc
SW 5V
POWER SW
LANC Vcc
CN102
MF-101 BOARD
(See Page 155)
DISPLAY LED
D101, 102 POWER LED
S101 POWER
CN J105 CONTROL 2
L204 D204
CN204
RM Vcc
CN501
DISPLAY LED
REMOTE CONTROL RECIEVER
RM-41 BOARD
(See Page 149)
CN512
SW 5V
LANC Vcc
SW 12V
D518
PS202
R132
AUDIO LEVEL DETECT
(See Page 148) MF-94 BOARD
SW 5V
UNSW 5.8V
CN103
CN102
BACK UP 5V
CN591
VPS
SLV-715 VP
VP-24 BOARD
(See Page 115)
NORMAL AUDIO
AUDIO INPUT/OUTPUT SELECTOR
Q807
6V REG
SW 9V
SW -6V
UNSW 5.8V
SW 12V
MTR 12V
MTR 12V
MTR 12V
CAPSTAN STEP DRIVE
SI-10 BOARD
NORMAL AUDIO INPUT SELECTOR
CN801
SW 6V
SW -6V
A1
B10
(See Page 115)
HF-9 BOARD
FM AUDIO
CN001
CN002
UNSW 5.8V
SW 12V
CN572
CN571
R502
(See Page 139)
CG-10 BOARD
ON SCREEN DISPLAY
CN585
UNSW 5V
SW 5V
CN586
(See Page 112)
RF MODULATOR
CN553
UNSW 5V
SW 5V
SW 9V
SW 5V
UNSW 5V
MTR 12V
CAM/LOADING MOTOR DRIVE
UNSW 5V
SERVO SYSTEM CONTROL
UNSW 5V
INDEX CONTROL
CN007
MTR 12V
MTR 12V
SW 5V
UNSW 5V
MTR 12V
CN004
LAMP Vcc
MD-49 BOARD
T REEL S REEL FG SENSOR
DRUM MOTOR DRIVE
TAPE TOP/END LED
(See Page 132)
CN002
MTR 12V
MTR 12V
CN008
CAPSTAN MOTOR
UNSW 5V
DEW SENSOR
CN582
SW 5V
SW 5V
SW 9V
SW 9V
CN301
VIDEO IN MUTE
VI-97 BOARD
(See Page 103)
CN302
CN303
SW 5V
SW 9V
CN703
CN702
VIDEO
YC-65 BOARD
(See Page 104)
CN701
SW 5V
SW 9V
CN202
(See Page 97)
RP-63 BOARD
REC/PB AMP
CN582
SW 9V
(See Page 104)
SD-4 BOARD
CN002
PAL/SECAM DETECT
SLV-715 VP
SW 5V
VIDEO RF DETECT
SW 5V
CTL REC/PB AMP & SWITCH
SW 9V
CAPSTAN/DRUM ERROR, FG/PG AMP
09

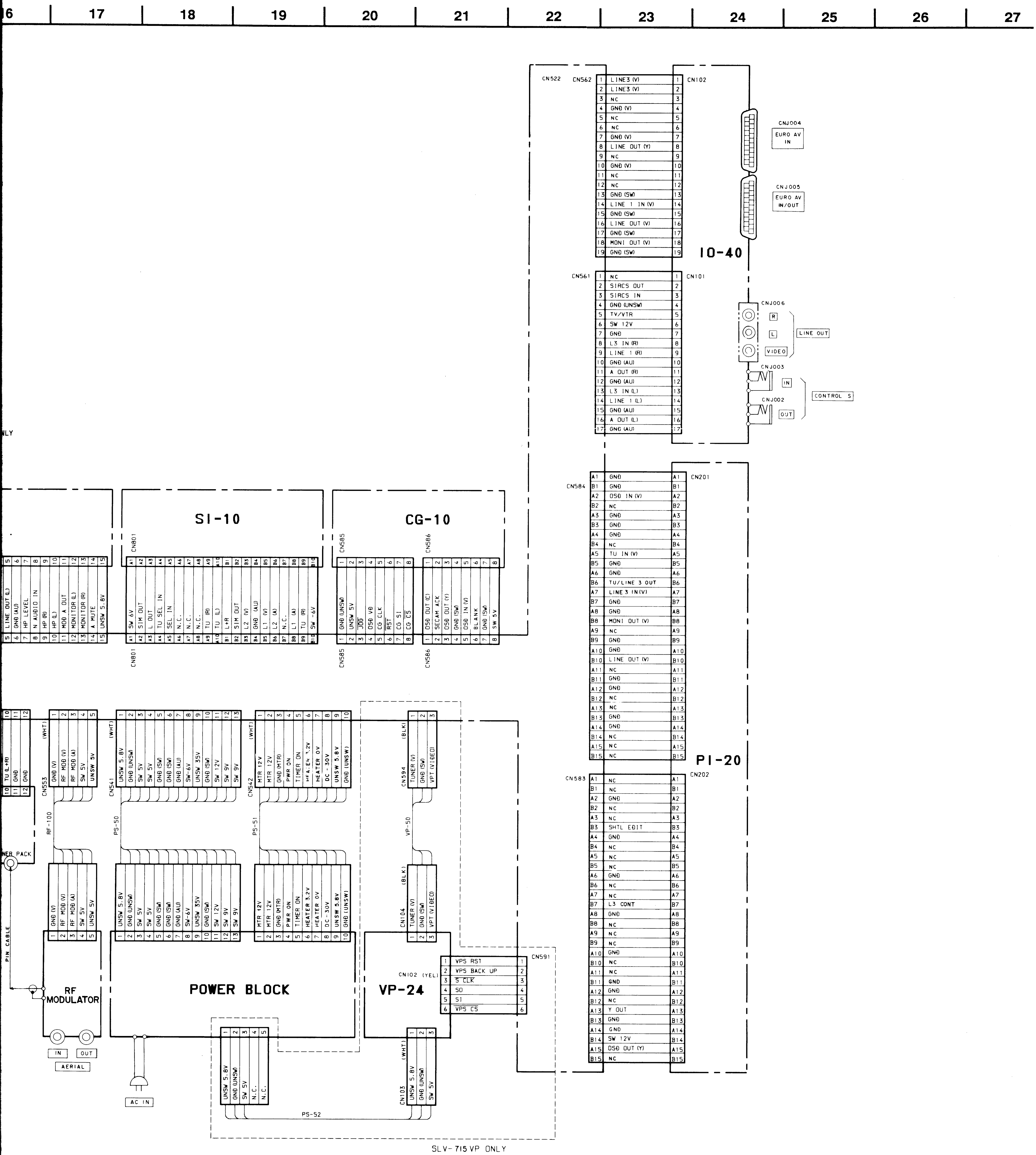
SECTION 4
PRINTED WIRING AND SCHEMATIC DIAGRAMS

4-1. FRAME SCHEMATIC DIAGRAM


M904 LOADING MOTOR
M901 DRUM MOTOR
S1 ROTARY SWITCH
M903 CAM MOTOR
M902 CAPSTAN MOTOR
VIDEO HEAD
FLYING ERASE HEAD
FM AUDIO HEAD
RY-50
RY-51
LM-42
RM-63
MD-49
RP-63
CHECK PIN
FFC
RA-52
RA-53
MF-94
FE-51
AC-151
LI-53
HP-110
VR-101
FULL ERASE HEAD
AUDIO HEAD
AUDIO ERASE HEAD
CTL HEAD
MF-101
RM-41
HEAD PHONES
MIC
LINE IN 2
CONTROL L
JOG/SHUTTLE
JS-20
TK-12
FPC
SW BLOCK


11
12
13
14
15
16
17
18
19
20
21
22
YC-65
CN701
CN702
CN703
VI-97
CN303
CN302
CN301
SD-4
CN851
CN852
CN551
CN552
SLV-715VP ONLY
FFC
HF- 9
CN002
CN001
SI-10
CN801
CG-10
CN585
CN586
MA-62
CN582
CN571
CN572
CN511
CN203
CN208
CN402
RM-41
TU-120
CN001
CN002
CN551
CN552
CN553
CN541
CN542
CN594
TO TUNER PACK
PIN CABLE
RF-100
PS-50
PS-51
VP-50
(WHT)
(BLK)
(YEL)
RF MODULATOR
IN
OUT
AERIAL
POWER BLOCK
AC IN
VP-24
CN104
CN103
CN102
CN591
VPS RST
VPS BACK UP
S CLK
SO
SI
VPS CS
PS-52
SLV-715VP ONLY
NM-1
CN003
CN004
CN002
CN001
CN003
NA-7
CN001
SLV-715UB ONLY
CN522
CN562
CN561
CN584
CN583

FRAME FRAME


16
17
18
19
20
21
22
23
24
25
26
27
IO-40
CN522
CN562
CN102
1 LINE3 (V)
2 LINE3 (V)
3 NC
4 GND (V)
5 NC
6 NC
7 GND (V)
8 LINE OUT (Y)
9 NC
10 GND (V)
11 NC
12 NC
13 GND (SW)
14 LINE 1 IN (V)
15 GND (SW)
16 LINE OUT (V)
17 GND (SW)
18 MONI OUT (V)
19 GND (SW)
CNJ004
EURO AV IN
CNJ005
EURO AV IN/OUT
CN561
CN101
1 NC
2 SIRCS OUT
3 SIRCS IN
4 GND (UNSW)
5 TV/VTR
6 SW 12V
7 GND
8 L3 IN (R)
9 LINE 1 (R)
10 GND (AU)
11 A OUT (R)
12 GND (AU)
13 L3 IN (L)
14 LINE 1 (L)
15 GND (AU)
16 A OUT (L)
17 GND (AU)
CNJ006
R
L
VIDEO
LINE OUT
CNJ003
IN
CNJ002
OUT
CONTROL S
PI-20
CN584
CN201
A1 GND
B1 GND
A2 OSD IN (V)
B2 NC
A3 GND
B3 GND
A4 GND
B4 NC
A5 TU IN (V)
B5 GND
A6 GND
B6 TU/LINE 3 OUT
A7 LINE 3 IN (V)
B7 GND
A8 GND
B8 MONI OUT (V)
A9 NC
B9 GND
A10 GND
B10 LINE OUT (V)
A11 NC
B11 GND
A12 GND
B12 NC
A13 NC
B13 GND
A14 GND
B14 NC
A15 NC
B15 NC
CN583
CN202
A1 NC
B1 NC
A2 GND
B2 NC
A3 NC
B3 SHTL EDIT
A4 GND
B4 NC
A5 NC
B5 NC
A6 GND
B6 NC
A7 NC
B7 L3 CONT
A8 GND
B8 NC
A9 NC
B9 NC
A10 GND
B10 NC
A11 NC
B11 GND
A12 GND
B12 NC
A13 Y OUT
B13 GND
A14 GND
B14 SW 12V
A15 OSD OUT (Y)
B15 NC
LY
5 LINE OUT (L)
6 GND (AU)
7 HP LEVEL
8 N AUDIO IN
9 HP (R)
10 HP (L)
11 MOD A OUT
12 MONITOR (L)
13 MONITOR (R)
14 A MUTE
15 UNSW 5.8V
SI-10
CN801
A1 SW 6V
A2 SIM OUT
A3 L OUT
A4 TU SEL IN
A5 SEL IN
A6 N.C.
A7 N.C.
A8 N.C.
A9 TU (R)
A10 TU (L)
B1 L+R
B2 SIM OUT
B3 L2 (V)
B4 GND (AU)
B5 L1 (V)
B6 L2 (A)
B7 N.C.
B8 L1 (A)
B9 TU (R)
B10 SW -6V
CG-10
CN585
1 GND (UNSW)
2 UNSW 5V
3 JOG
4 OSD VD
5 CG CLK
6 RST
7 CG SI
8 CG CS
CN586
1 OSD OUT (C)
2 SECAM ACK
3 OSD OUT (Y)
4 GND (SW)
5 OSD IN (V)
6 BLANK
7 GND (SW)
8 SW 5V
10 TU (L+R)
11 GND
12 GND
CN553 (WHT)
1 GND (V)
2 RF MOD (V)
3 RF MOD (A)
4 SW 5V
5 UNSW 5V
RF-100
CN541 (WHT)
1 UNSW 5.8V
2 GND (UNSW)
3 SW 5V
4 SW 5V
5 GND (SW)
6 GND (SW)
7 GND (AU)
8 SW-6V
9 UNSW 35V
10 GND (SW)
11 SW 12V
12 SW 9V
13 SW 9V
PS-50
CN542 (WHT)
1 MTR 12V
2 MTR 12V
3 GND (MTR)
4 PWR ON
5 TIMER ON
6 HEATER 3.2V
7 HEATER 0V
8 DC -30V
9 UNSW 5.8V
10 GND (UNSW)
PS-51
CN594 (BLK)
1 TUNER (V)
2 GND (SW)
3 VPT (VIDEO)
VP-50
CN104 (BLK)
PIN CABLE
NER PACK
RF MODULATOR
IN
OUT
AERIAL
POWER BLOCK
AC IN
VP-24
CN102 (YEL)
CN591
1 VPS RST
2 VPS BACK UP
3 S CLK
4 SO
5 SI
6 VPS CS
CN103 (WHT)
1 UNSW 5.8V
2 GND (UNSW)
3 SW 5V
4 N.C.
5 N.C.
PS-52
SLV-715VP ONLY

FRAME FRAME

4-2. PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

THIS NOTE IS COMMON FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS.
(In addition to this , the necessary note is printed in each block.)

- **For printed wiring boards.**
- ○— : indicated a lead wire mounted on the component side.
- —— : indicated a lead wire mounted on the conductor side.
- ● : Through hole.
- ■ : Parts mounted on the conductor side.
- ▨ : Pattern from the side which enables seeing.
- ░ : Pattern of the rear side.
- Circled numbers refer to waveforms.

Caution:

Pattern face side: (Conductor Side)	Parts on the pattern face side seen from the pattern face are indicated.
Parts face side: (Component side)	Parts on the parts face side seen from the pattern face are indicated.

- **For schematic diagrams.**
- Caution when replacing chip parts.
  New parts must be attached after removal of chip.
  Be careful not to heat the minuts side of tantalum capacitor, because it is damaged by the heat.
- All resistors are in ohms, 1/4W unless otherwise noted.
  Chip resistor are 1/10W unless otherwise noted.
  kΩ : 1000Ω , MΩ : 1000kΩ .
- All capacitors are in μF unless otherwise noted. pF: μμF.
  50V or less are not indicated except for electrolytics and tantalums.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- ⊣▭⊢ : nonflammable resistor.
- ⊣▭∿⊢ : fusible resistor.
- ▭ : panel designation.
- △ : internal component.
- ▭ : adjustment for repeair.
- ━━ : B+ Line.
- - - - : B– Line.
- ⇨ : IN/OUT direction of (+, –) B LINE.
- Circled numbers refer to waveforms.
- Voltages are dc between ground and measurement points.
- Readings are taken with a color-bar signal input.
- Readings are taken with a digital multimeter (DC10MΩ).
- Voltages are taken with a VOM (Input impedance 10MΩ).
- Voltage variations may be noted due to normal production tolerances.

Note: The components identi- fied by mark ⚠ or dotted line with mark ⚠ are critical for safty.
Replace only with part number specified.

When indicating parts by reference number, please include the board name.

RP-63 (REC/PB H

— Ref. No. RP-63 BOAR

A-6727-137-A RP-63 BO
****

D102	8-719-400-18
D801	8-719-400-18
D802	8-719-400-18
D803	8-719-400-18
IC101	8-759-320-5
IC801	8-759-320-5
Q101	8-729-216-2
Q801	8-729-216-2
Q802	8-729-120-2
Q803	8-729-120-2
Q804	8-729-901-0
Q805	8-729-901-0
Q806	8-729-901-0
Q850	8-729-301-9
Q851	8-729-901-0
Q852	8-729-216-2
Q853	8-729-216-2
Q854	8-729-901-0

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RP-63 (REC/PB HEAD AMP) PRINTED WIRING BOARD

— Ref. No. RP-63 BOARD: 1000 series —

A-6727-137-A RP-63 BOARD, COMPLETE
****
(Ref. No 1, 000 Series)

< DIODE >

D102	8-719-400-18	DIODE	MA152WK
D801	8-719-400-18	DIODE	MA152WK
D802	8-719-400-18	DIODE	MA152WK
D803	8-719-400-18	DIODE	MA152WK

< IC >

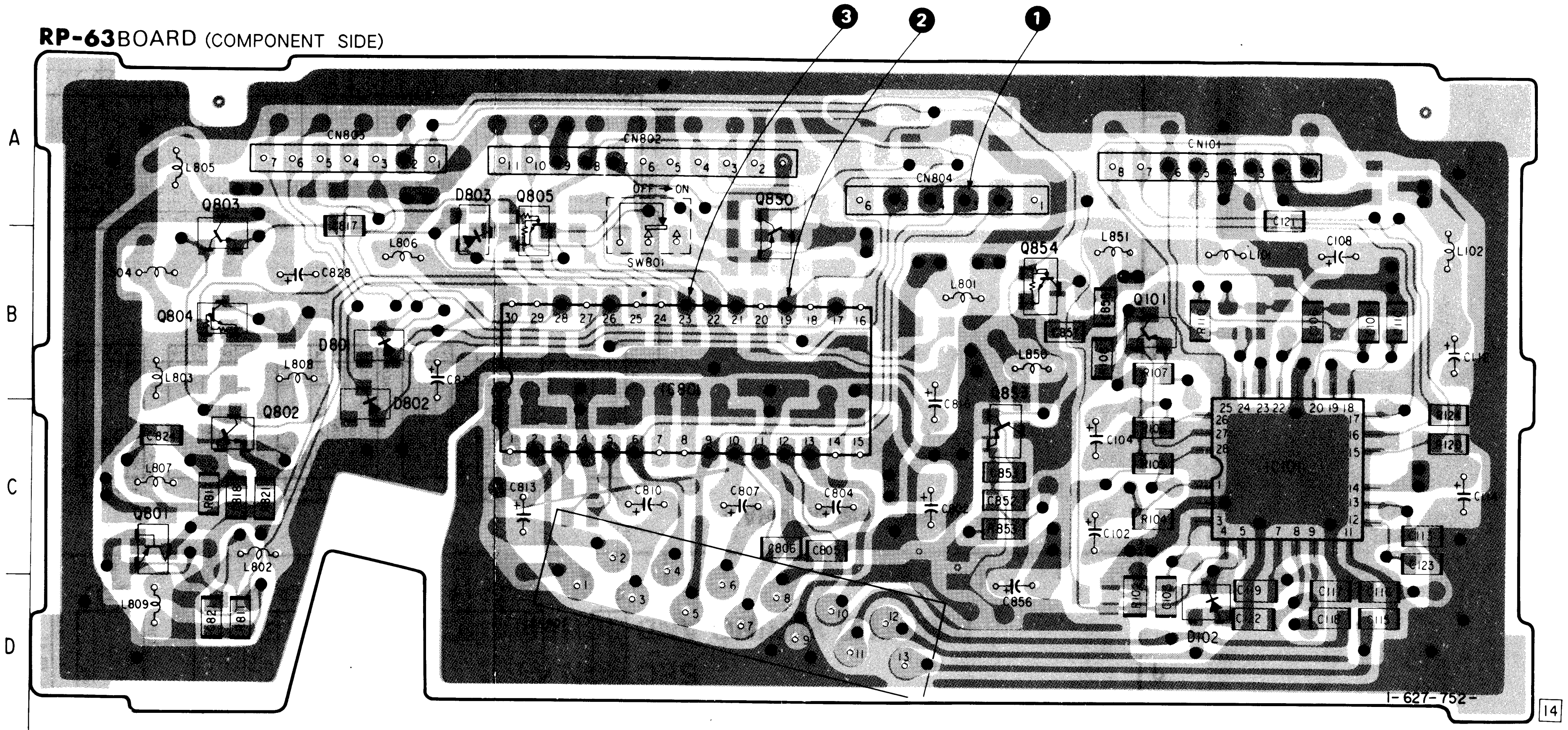
IC101	8-759-320-55	IC	HA12115MP
IC801	8-759-320-52	IC	HA118019NT

< TRANSISTOR >

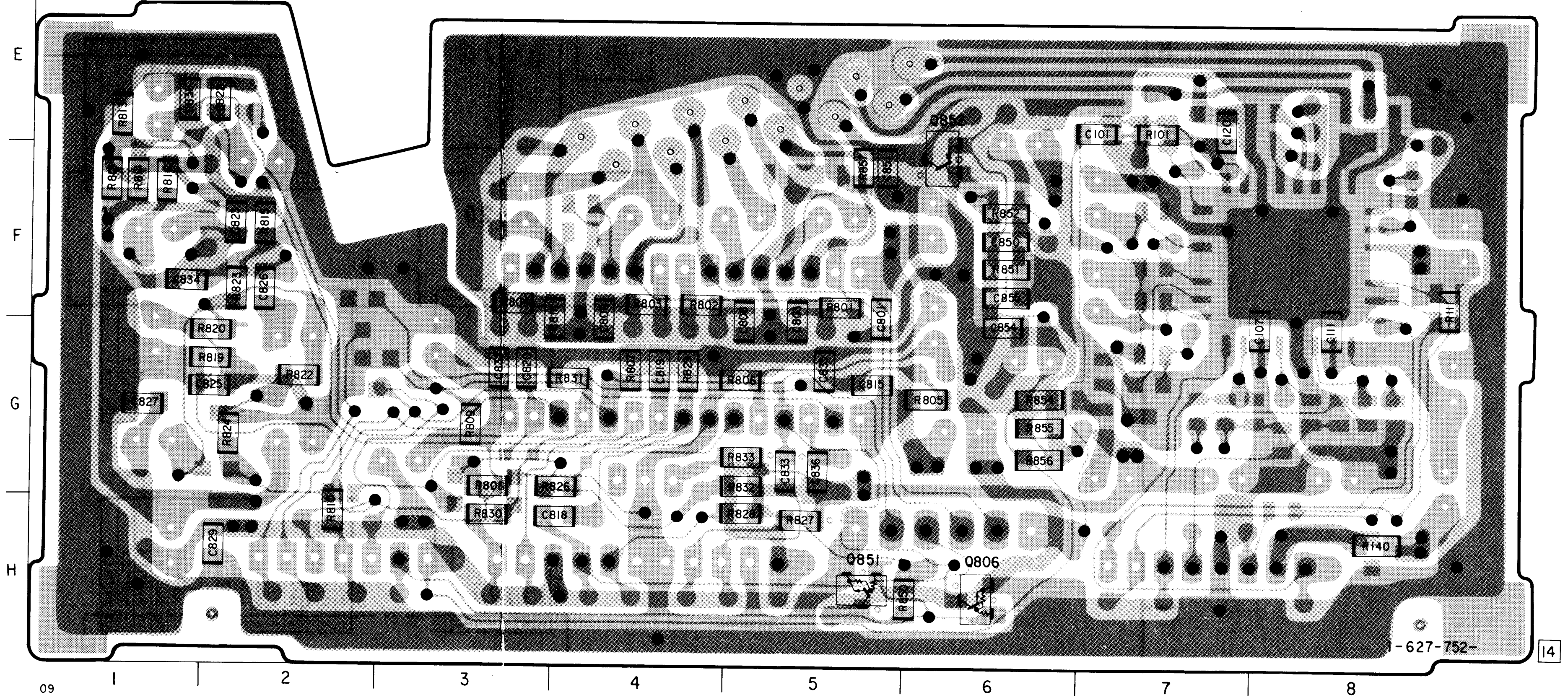
Q101	8-729-216-22	TRANSISTOR	2SA1162
Q801	8-729-216-22	TRANSISTOR	2SA1162
Q802	8-729-120-28	TRANSISTOR	2SC1623-L5L6
Q803	8-729-120-28	TRANSISTOR	2SC1623-L5L6
Q804	8-729-901-01	TRANSISTOR	DTC144EK
Q805	8-729-901-01	TRANSISTOR	DTC144EK
Q806	8-729-901-01	TRANSISTOR	DTC144EK
Q850	8-729-301-98	TRANSISTOR	2SB1000A-L
Q851	8-729-901-01	TRANSISTOR	DTC144EK
Q852	8-729-216-22	TRANSISTOR	2SA1162
Q853	8-729-216-22	TRANSISTOR	2SA1162
Q854	8-729-901-01	TRANSISTOR	DTC144EK

RP-63	BOARD
D102	D-7
D801	B-2
D802	B-2
D803	A-3
IC101	C-8
IC801	B-4
Q101	B-7
Q801	C-1
Q802	C-2
Q803	B-2
Q804	B-2
Q805	A-3
Q806	H-6
Q850	A-5
Q851	H-5
Q852	F-6
Q853	C-6
Q854	B-5

RP-63 BOARD (COMPONENT SIDE)

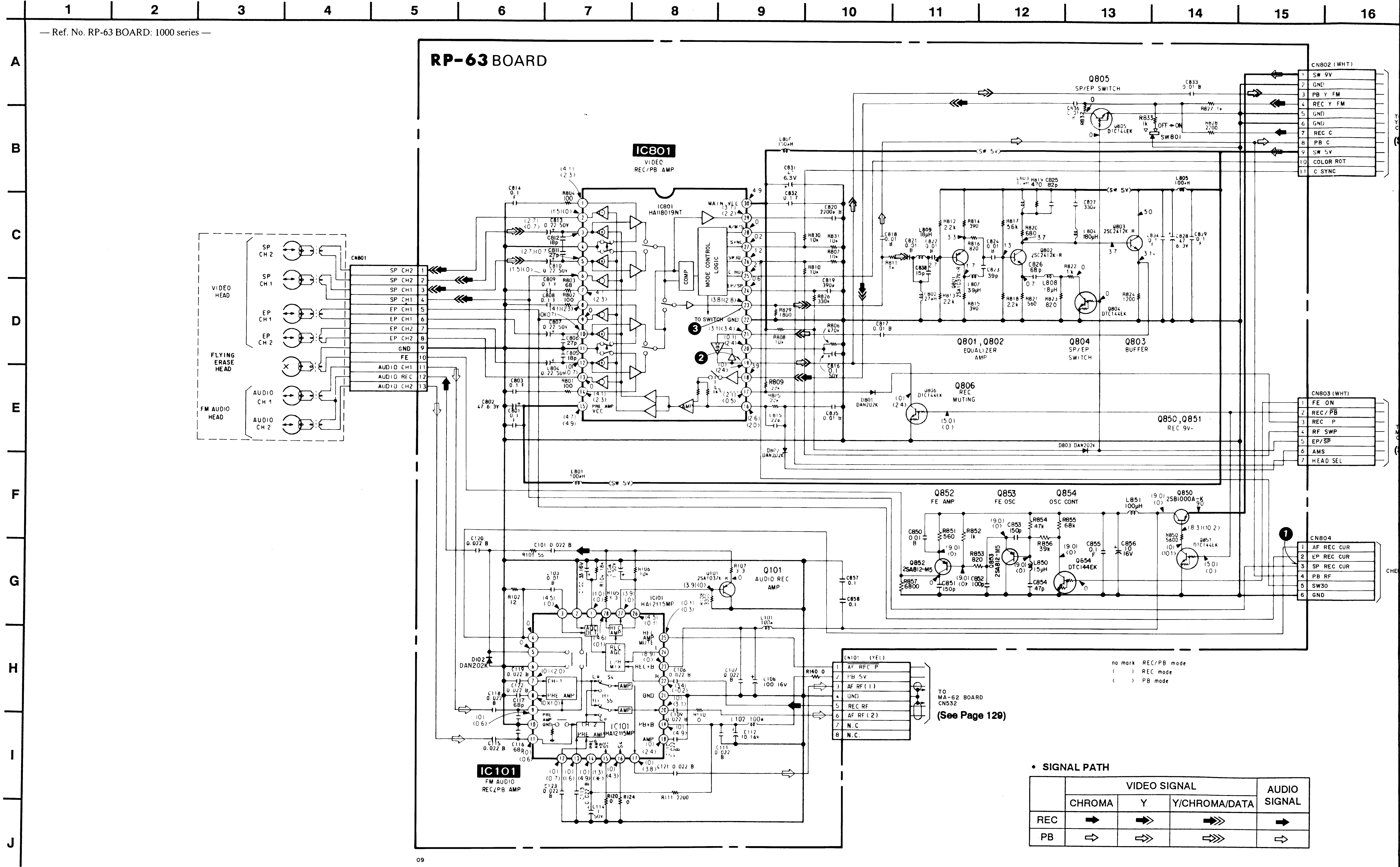

❸
❷
❶
A
B
C
D
CN803
CN802
CN804
CN101
SW801
OFF → ON
Q803
Q804
Q802
Q801
Q805
Q850
Q854
Q853
Q101
D803
D801
D802
D102
IC801
IC101
L805
L806
L807
L808
L809
L802
L803
L851
L801
L850
L101
L102
C828
C810
C807
C804
C813
C856
C108
C104
C102
1-627-752-
14

RP-63 BOARD (CONDUCTOR SIDE)


E
F
G
H
09
1
2
3
4
5
6
7
8
Q852
Q851
Q806
C101
R101
C120
R852
R850
R851
C857
C854
R805
R854
R855
R856
R833
R832
R828
R827
R808
R826
R830
C818
R820
R819
R822
R827
R834
C829
R140
1-627-752-
14

RP-63 (REC/PB HEAD AMP) SCHEMATIC DIAGRAM

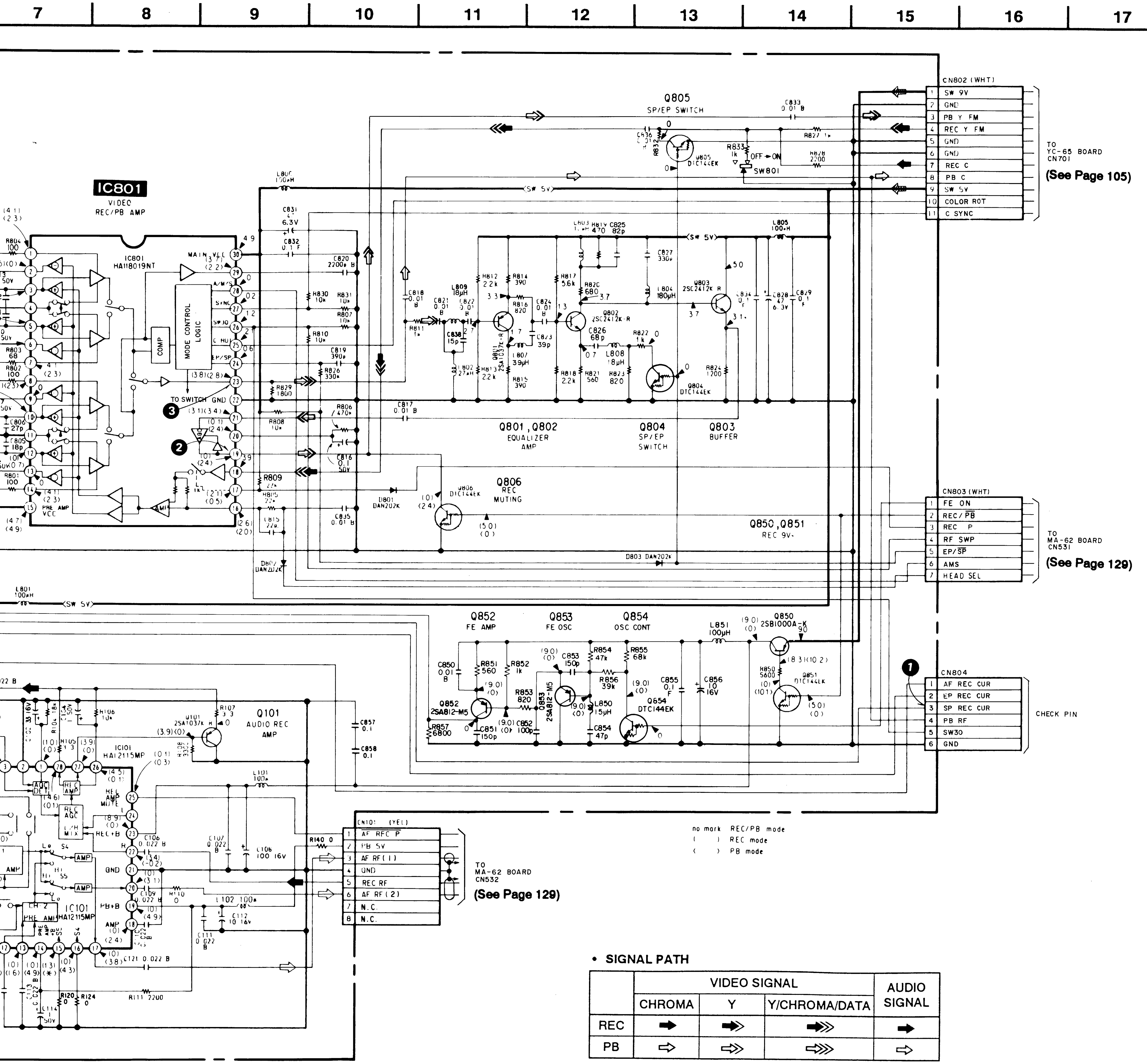
— Ref. No. RP-63 BOARD: 1000 series —


RP-63 BOARD
VIDEO HEAD
SP CH 2
SP CH 1
EP CH 1
EP CH 2
FLYING ERASE HEAD
FM AUDIO HEAD
AUDIO CH 1
AUDIO CH 2
CN801
SP CH2 1
SP CH2 2
SP CH1 3
SP CH1 4
EP CH1 5
EP CH1 6
EP CH2 7
EP CH2 8
GND 9
FE 10
AUDIO CH1 11
AUDIO REC 12
AUDIO CH2 13
IC801 VIDEO REC/PB AMP
IC801 HA118019NT
MODE CONTROL LOGIC
COMP
TO SWITCH
Q805 SP/EP SWITCH
SW801
Q801, Q802 EQUALIZER AMP
Q804 SP/EP SWITCH
Q803 BUFFER
Q806 REC MUTING
Q850, Q851 REC 9V
Q852 FE AMP
Q853 FE OSC
Q854 OSC CONT
Q101 AUDIO REC AMP
IC101 FM AUDIO REC/PB AMP
IC101 HA12115MP
CN802 (WHT)
1 SW 9V
2 GND
3 PB Y FM
4 REC Y FM
5 GND
6 GND
7 REC C
8 PB C
9 SW 5V
10 COLOR ROT
11 C SYNC
CN803 (WHT)
1 FE ON
2 REC/PB
3 REC P
4 RF SWP
5 EP/SP
6 AMS
7 HEAD SEL
CN804
1 AF REC CUR
2 EP REC CUR
3 SP REC CUR
4 PB RF
5 SW30
6 GND
CN101 (YEL)
1 AF REC P
2 PB 5V
3 AF RF (1)
4 GND
5 REC RF
6 AF RF (2)
7 N.C.
8 N.C.
TO MA-62 BOARD CN532
(See Page 129)

no mark REC/PB mode
( ) REC mode
〈 〉 PB mode

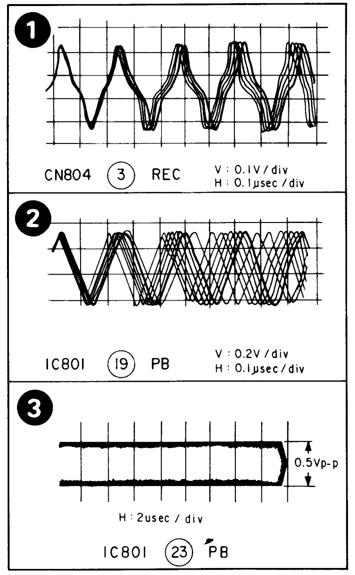
- SIGNAL PATH

	VIDEO SIGNAL			AUDIO SIGNAL
	CHROMA	Y	Y/CHROMA/DATA	
REC	➡	➡➡	➡➡➡	➡
PB	⇨	⇨⇨	⇨⇨⇨	⇨


7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
IC801
VIDEO REC/PB AMP
IC801 HA118019NT
MAIN VCC
COMP
MODE CONTROL LOGIC
TO SWITCH GND
PRE AMP VCC
Q805 SP/EP SWITCH
SW801
OFF ← ON
Q801, Q802 EQUALIZER AMP
Q804 SP/EP SWITCH
Q803 BUFFER
Q806 REC MUTING
Q850, Q851 REC 9V
Q852 FE AMP
Q853 FE OSC
Q854 OSC CONT
Q850 2SB1000A-K
Q101 AUDIO REC AMP
IC101 HA12115MP
CN802 (WHT)
1 SW 9V
2 GND
3 PB Y FM
4 REC Y FM
5 GND
6 GND
7 REC C
8 PB C
9 SW 5V
10 COLOR ROT
11 C SYNC
TO YC-65 BOARD CN701
(See Page 105)
CN803 (WHT)
1 FE ON
2 REC/PB
3 REC P
4 RF SWP
5 EP/SP
6 AMS
7 HEAD SEL
TO MA-62 BOARD CN531
(See Page 129)
CN804
1 AF REC CUR
2 EP REC CUR
3 SP REC CUR
4 PB RF
5 SW30
6 GND
CHECK PIN
CN101 (YEL)
1 AF REC P
2 PB 5V
3 AF RF (1)
4 GND
5 REC RF
6 AF RF (2)
7 N.C.
8 N.C.
TO MA-62 BOARD CN532
(See Page 129)
(SW 5V)

no mark REC/PB mode
( ) REC mode
〈 〉 PB mode

RP-63 BOARD



- **SIGNAL PATH**

	VIDEO SIGNAL			AUDIO SIGNAL
	CHROMA	Y	Y/CHROMA/DATA	
REC	➡	➡➡	➡➡➡	➡
PB	⇨	⇨⇨	⇨⇨⇨	⇨

* A-6727-277-A YC-65 BOARD, COMPLETE (SLV-715/UB)
****
* A-6727-281-A YC-65 BOARD, COMPLETE (SLV-715VP)
****
(Ref.No 2,000 Series)

< DIODE >

D705	8-719-104-34	DIODE	1S2835-T1
D801	8-719-400-18	DIODE	MA152WK
D803	8-719-400-18	DIODE	MA152WK

< IC >

IC701	8-759-420-07	IC	AN3231K
IC702	8-752-321-89	IC	CXL5003P
IC801	8-759-320-78	IC	HA118016NT
IC802	8-759-822-05	IC	LA7213
IC860	8-759-420-53	IC	AN3592K
IC861	8-759-991-54	IC	MSM6989RS
IC862	8-752-006-12	IC	CX20061
IC863	8-759-822-05	IC	LA7213
IC864	8-759-000-49	IC	MC14066BCP

< TRANSISTOR >

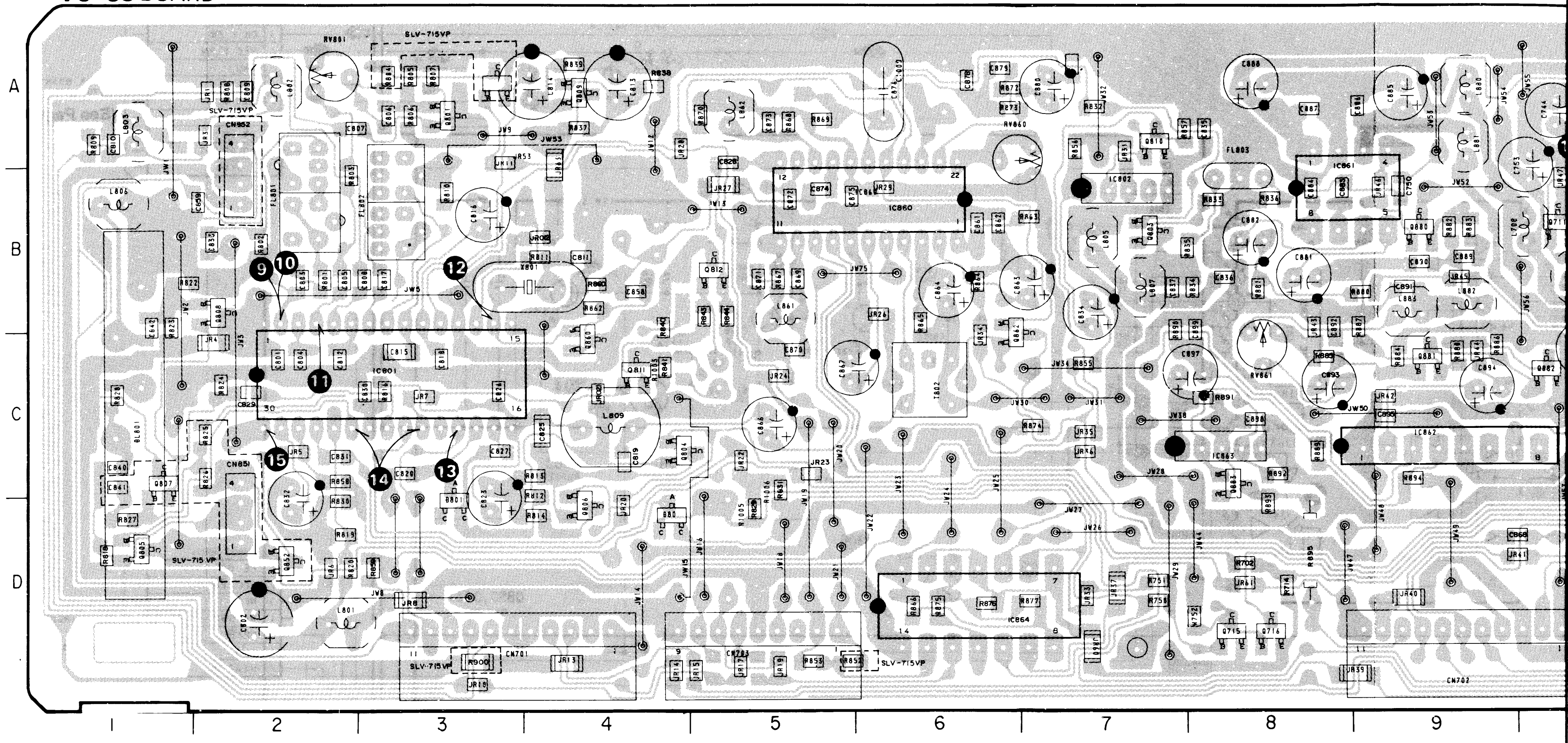
Q702	8-729-216-22	TRANSISTOR	2SA1162
Q703	8-729-901-47	TRANSISTOR	DTA143EK
Q704	8-729-901-01	TRANSISTOR	DTC144EK
Q705	8-729-100-66	TRANSISTOR	2SC1623
Q706	8-729-216-22	TRANSISTOR	2SA1162
Q707	8-729-100-66	TRANSISTOR	2SC1623
Q709	8-729-100-66	TRANSISTOR	2SC1623
Q711	8-729-216-22	TRANSISTOR	2SA1162
Q715	8-729-901-01	TRANSISTOR	DTC144EK
Q716	8-729-901-01	TRANSISTOR	DTC144EK
Q717	8-729-100-66	TRANSISTOR	2SC1623
Q719	8-729-216-22	TRANSISTOR	2SA1162
Q721	8-729-100-66	TRANSISTOR	2SC1623
Q722	8-729-901-01	TRANSISTOR	DTC144EK
Q723	8-729-901-01	TRANSISTOR	DTC144EK
Q801	8-729-100-66	TRANSISTOR	2SC1623
Q802	8-729-901-01	TRANSISTOR	DTC144EK (SLV-715VP)
Q803	8-729-100-66	TRANSISTOR	2SC1623
Q804	8-729-900-53	TRANSISTOR	DTC114EK
Q805	8-729-216-22	TRANSISTOR	2SA1162
Q806	8-729-901-01	TRANSISTOR	DTC144EK
Q807	8-729-100-66	TRANSISTOR	2SC1623 (SLV-715VP)
Q808	8-729-100-66	TRANSISTOR	2SC1623
Q809	8-729-100-66	TRANSISTOR	2SC1623
Q810	8-729-901-04	TRANSISTOR	DTA114EK
Q811	8-729-216-22	TRANSISTOR	2SA1162
Q812	8-729-100-66	TRANSISTOR	2SC1623
Q852	8-729-901-01	TRANSISTOR	DTC144EK (SLV-715VP)
Q860	8-729-809-77	TRANSISTOR	2SC3142-J4
Q862	8-729-901-01	TRANSISTOR	DTC144EK
Q880	8-729-100-66	TRANSISTOR	2SC1623
Q881	8-729-100-66	TRANSISTOR	2SC1623
Q882	8-729-216-22	TRANSISTOR	2SA1162
Q883	8-729-100-66	TRANSISTOR	2SC1623

YC-65 (VIDEO PROCESS), SD-4 (SECAM DETECTOR), VI-97 (RELAY) PRINTED WIRING BOARDS

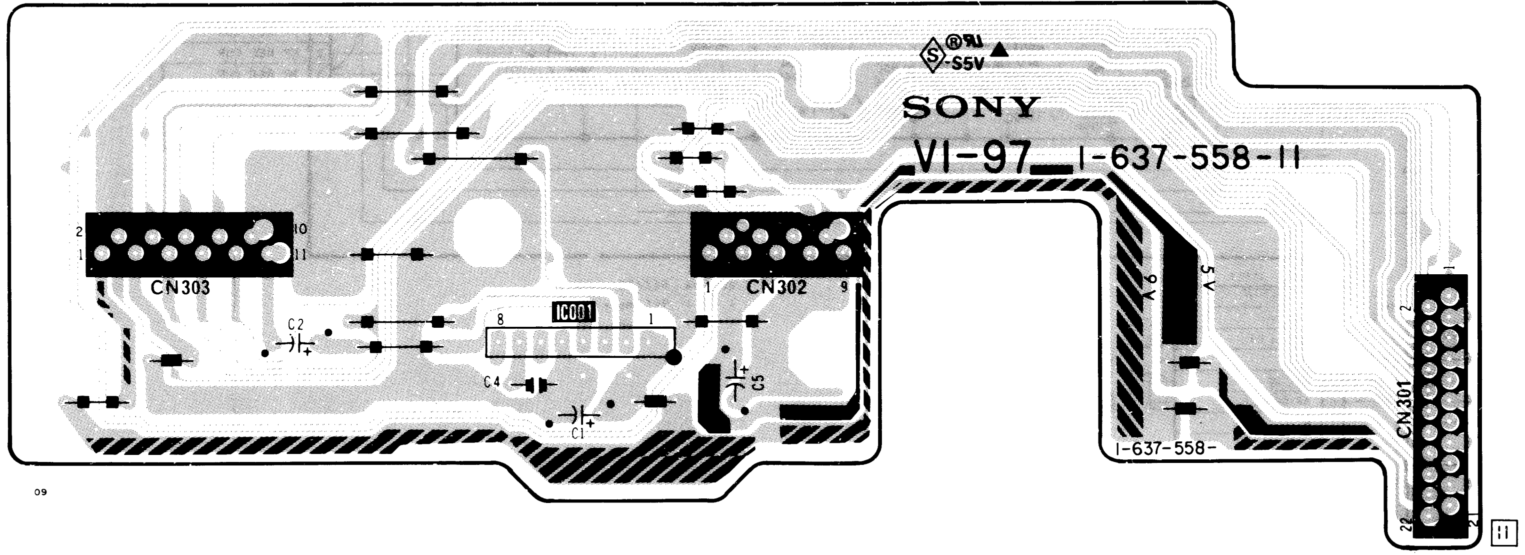
— Ref. No. YC-65 BOARD: 2000 series, VI-97 BOARD: 1000 series, SD-4 BOARD: 6000 series —

YC-65	BOARD
D705	D-11
D801	D-3
D803	D-4
IC701	C-13
IC702	A-10
IC801	C-3
IC802	B-7
IC860	B-6
IC861	A-8
IC862	C-9
IC863	C-8
IC864	D-6
Q702	B-11
Q703	D-11
Q704	D-12
Q705	A-11
Q706	A-11
Q707	D-14
Q709	D-13
Q711	B-10
Q715	D-8
Q716	D-8
Q717	D-11
Q719	D-11
Q721	D-12
Q722	D-11
Q723	D-12
Q801	A-3
Q802	A-3
Q803	B-2
Q804	C-4
Q805	D-1
Q806	D-4
Q807	C-1
Q808	B-2
Q809	A-4
Q810	A-7
Q811	C-4
Q812	B-5
Q852	D-2
Q860	B-4
Q862	B-6
Q880	B-9
Q881	C-9
Q882	C-10
Q883	C-8

YC-65 BOARD



VI-97 BOARD



* 1-637-558-11 VI-97 BOARD (Ref.No 1,000 Series)
****

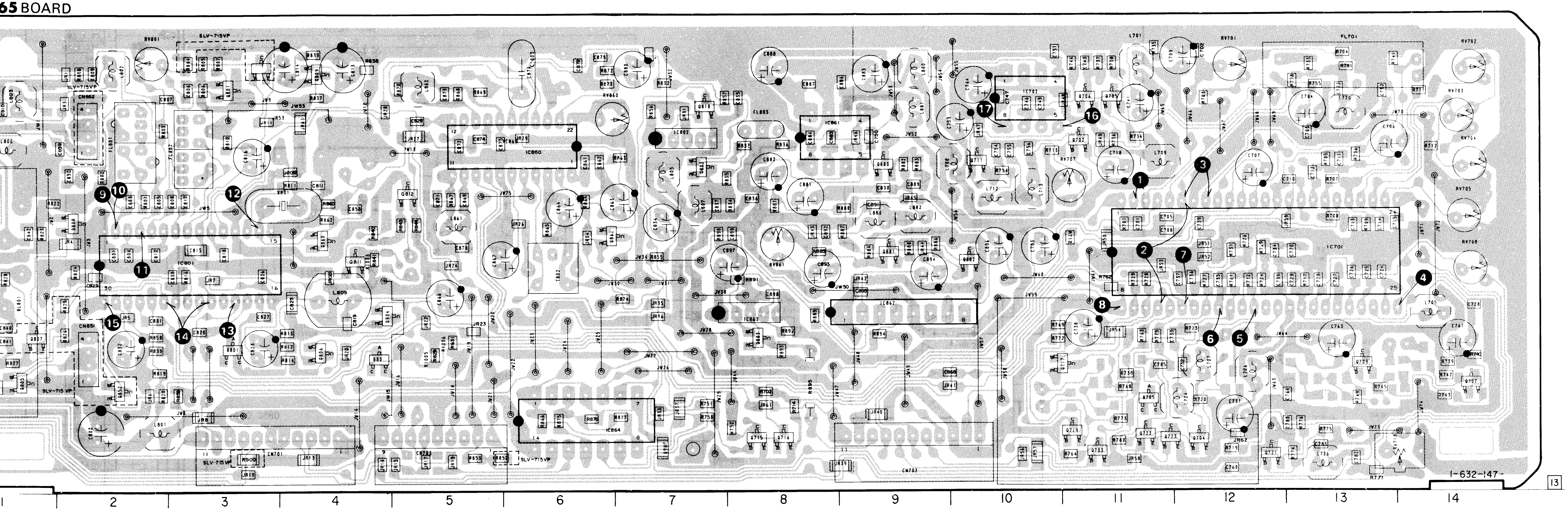
< IC >

IC001	8-759-800-81	IC	LA7016

ROCESS), SD-4 (SECAM DETECTOR), VI-97 (RELAY) PRINTED WIRING BOARDS

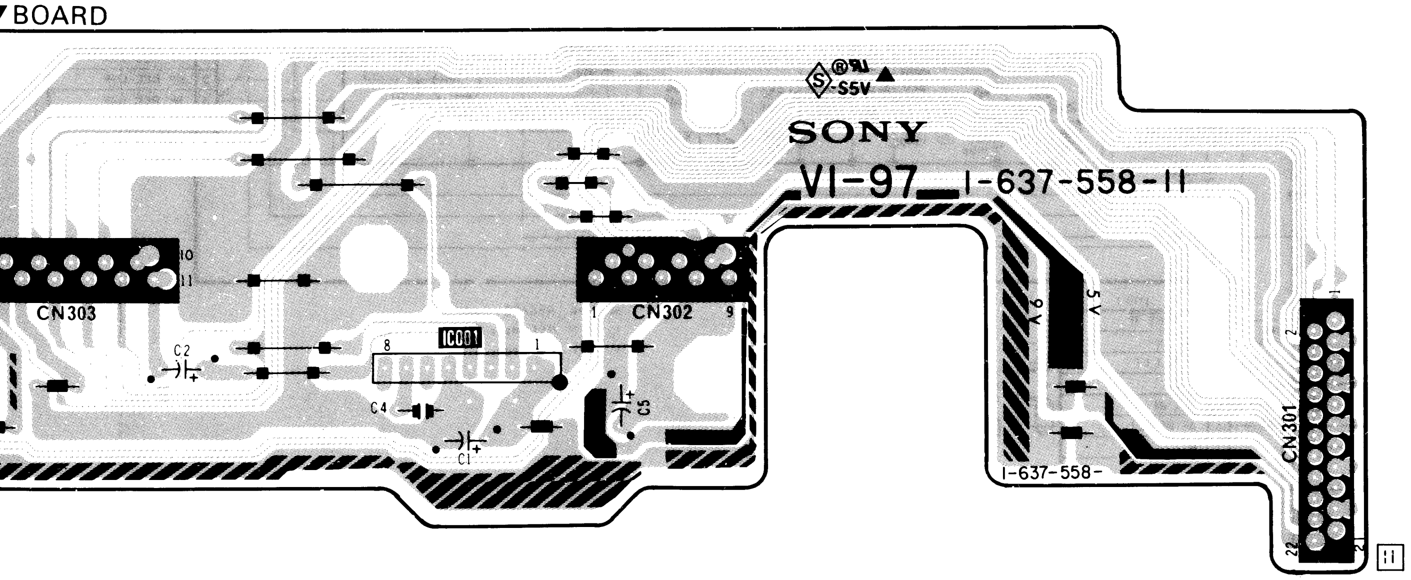
RD: 2000 series, VI-97 BOARD: 1000 series, SD-4 BOARD: 6000 series —

65 BOARD



SLV-715VP
IC801
IC802
IC860
IC861
IC862
IC863
IC864
IC701
IC702
1-632-147-
13
1
2
3
4
5
6
7
8
9
10
11
12
13
14

7 BOARD



SONY
VI-97
1-637-558-11
CN303
CN302
CN301
IC001
C1
C2
C4
C5
1-637-558-
11

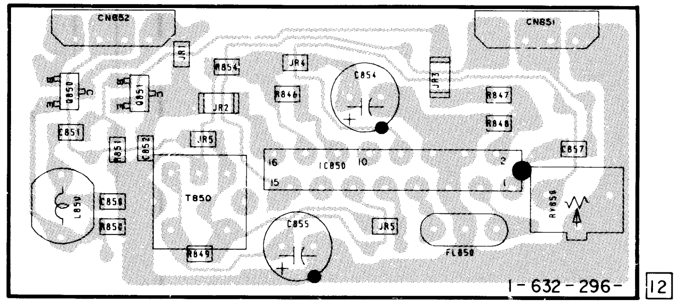
58-11 VI-97 BOARD (Ref.No 1,000 Series)

****

< IC >

-759-800-81 IC LA7016

SD-4 BOARD



CN852
CN851
IC850
T850
FL850
1-632-296-
12

*1-632-296-12 SD-4 BOARD (SLV-715VP)

********** (Ref. No. 5000 series)

IC

IC850 8-759-904-95 IC BA7077

TRANSISTOR

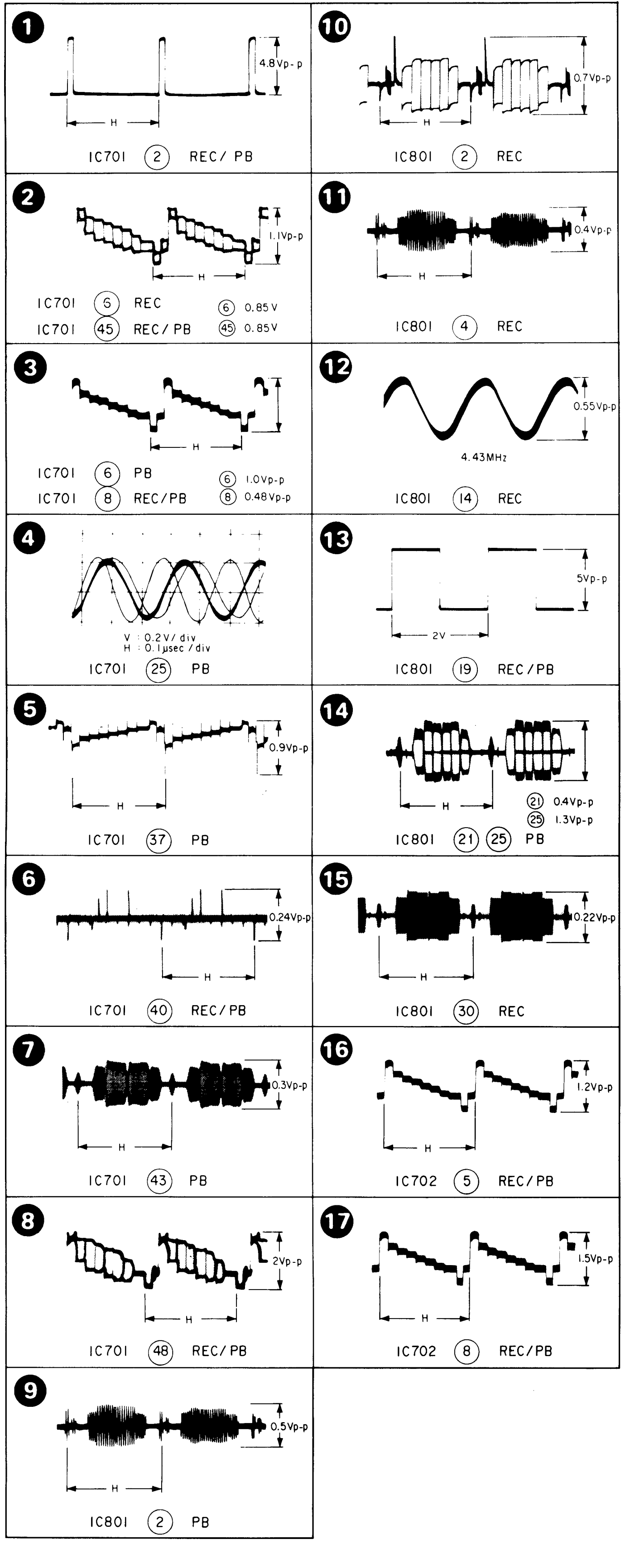
Q850 8-729-901-81 TRANSISTOR 2SC2412K

Q851 8-729-901-81 TRANSISTOR 2SC2412K

YC-65 (VIDEO PROCESS), SD-4 (SECAM DETECTOR), VI-97 (RELAY) SCHEMATIC DIAGRAMS

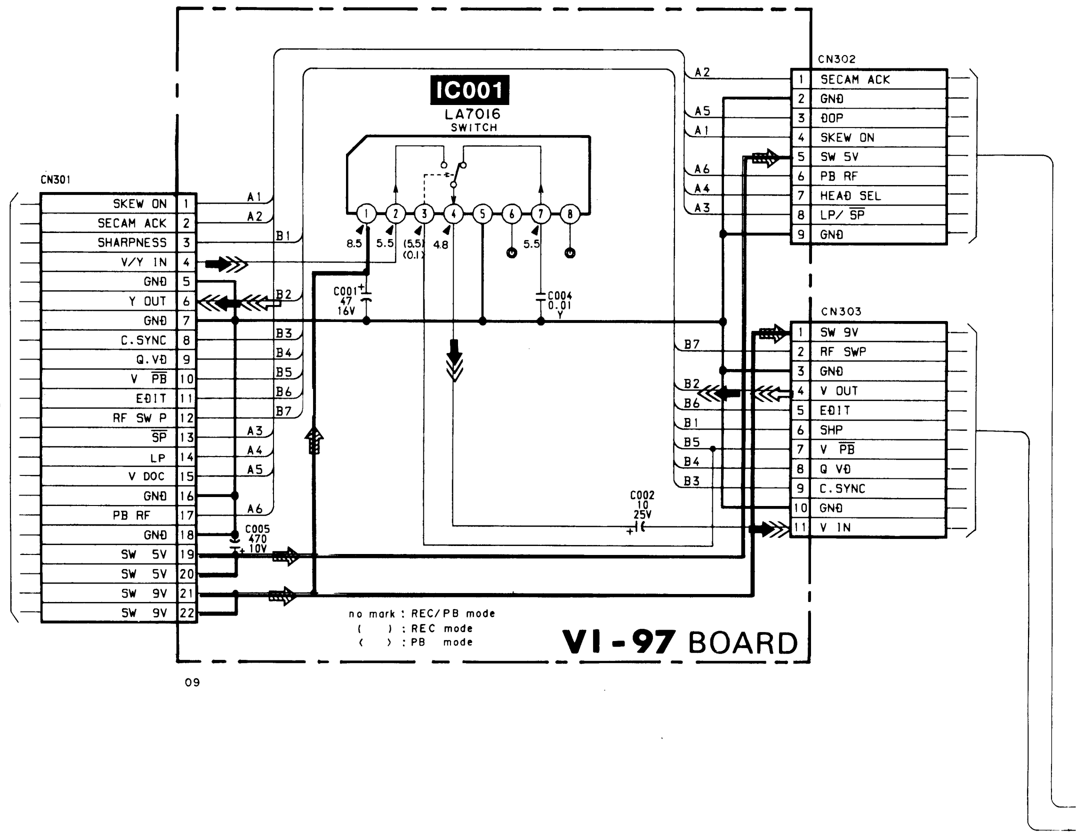
— Ref. No. YC-65 BOARD: 2000 series, VI-97 BOARD: 1000 series, SD-4 BOARD: 6000 series —

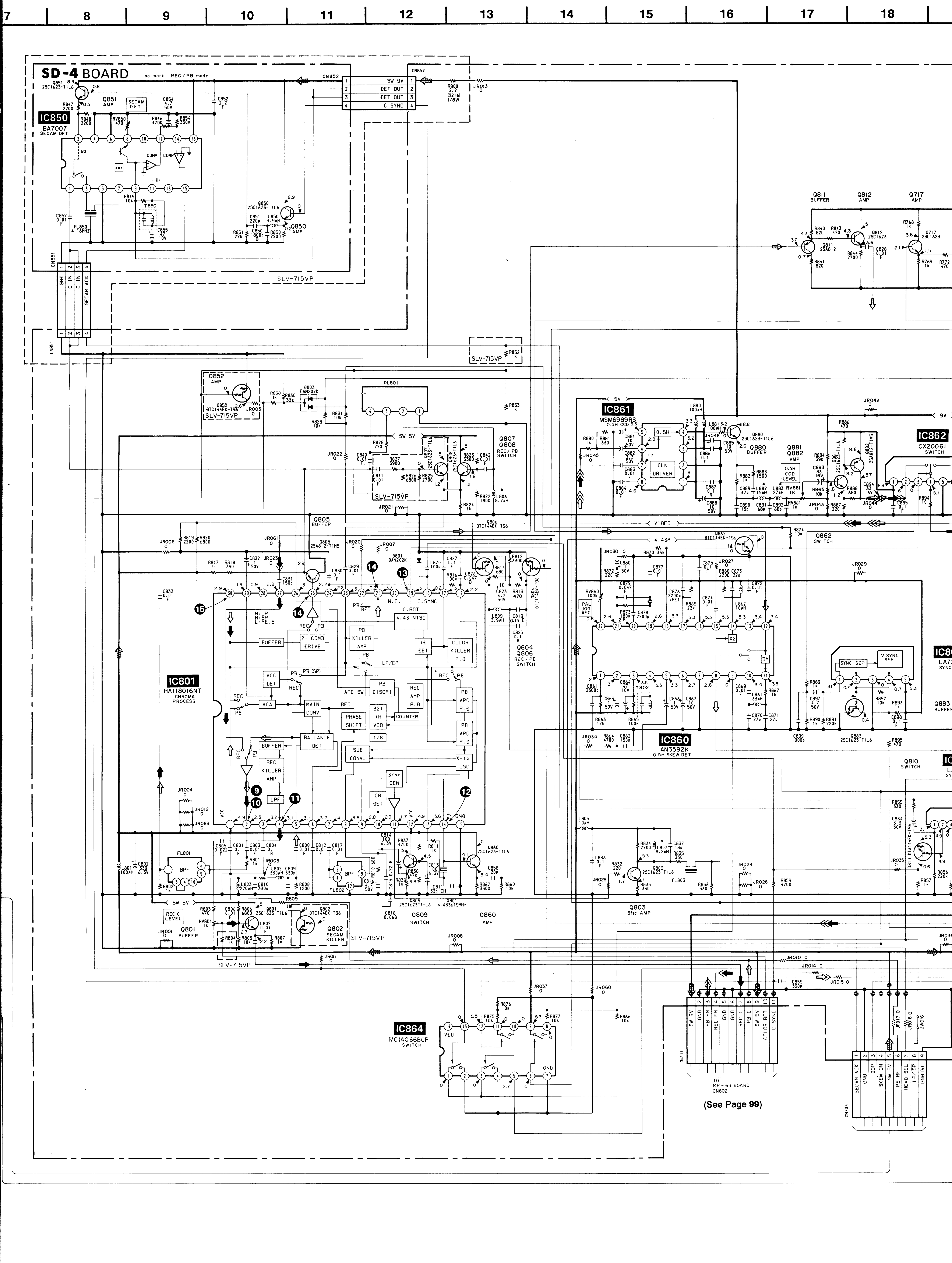
YC-65 BOARD

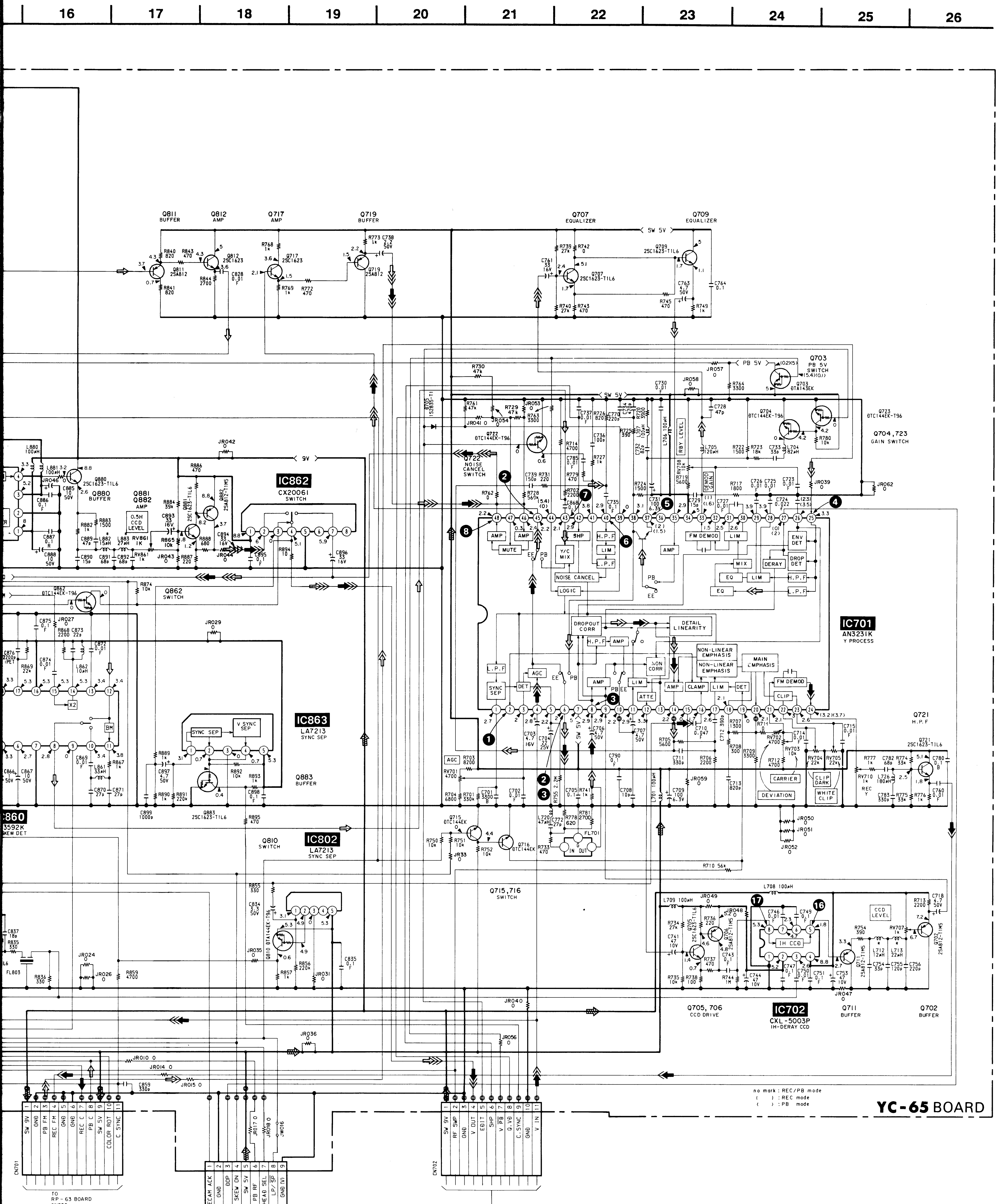


TO MA-62 BOARD CN582

(See Page 117)


IC001
LA7016
SWITCH
CN301
SKEW ON 1
SECAM ACK 2
SHARPNESS 3
V/Y IN 4
GND 5
Y OUT 6
GND 7
C.SYNC 8
Q.VD 9
V PB 10
EDIT 11
RF SW P 12
SP 13
LP 14
V DOC 15
GND 16
PB RF 17
GND 18
SW 5V 19
SW 5V 20
SW 9V 21
SW 9V 22
A1 A2 B1 B2 B3 B4 B5 B6 B7 A3 A4 A5 A6
8.5 5.5 (5.5) (0.1) 4.8 5.5
C001 47 16V
C004 0.01 Y
C005 470 10V
C002 10 25V
CN302
1 SECAM ACK
2 GND
3 DOP
4 SKEW ON
5 SW 5V
6 PB RF
7 HEAD SEL
8 LP/SP
9 GND
CN303
1 SW 9V
2 RF SWP
3 GND
4 V OUT
5 EDIT
6 SHP
7 V PB
8 Q VD
9 C.SYNC
10 GND
11 V IN
no mark : REC/PB mode
( ) : REC mode
( ) : PB mode
VI-97 BOARD
09


7
8
9
10
11
12
13
14
15
16
17
18
SD-4 BOARD
no mark : REC/PB mode
IC850
BA7007
SECAM DET
Q851
AMP
SECAM DET
Q850
AMP
CN852
SW 9V
DET OUT
DET OUT
C SYNC
CN851
GND
C IN
C IN
SECAM ACK
SLV-715VP
Q852
AMP
DL801
Q807
Q808
REC/PB SWITCH
Q805
BUFFER
Q806
IC801
HA118016NT
CHROMA PROCESS
Q804
Q806
REC/PB SWITCH
BUFFER
2H COMB DRIVE
PB KILLER AMP
4.43 NTSC
1H DET
COLOR KILLER P.D
ACC DET
VCA
MAIN CONV
PB DISCRI
REC AMP P.D
PB APC P.D
PHASE SHIFT
321 fH VCO
COUNTER
BALLANCE DET
SUB CONV.
1/8
X-tal OSC
3fsc GEN
CR DET
REC KILLER AMP
LPF
BPF
FL801
FL802
Q801
BUFFER
Q802
SECAM KILLER
Q809
SWITCH
Q860
AMP
REC C LEVEL
IC864
MC14066BCP
SWITCH
IC861
MSM6989RS
0.5H CCD
CLK DRIVER
Q880
BUFFER
Q881
Q882
AMP
0.5H CCD LEVEL
IC862
CX20061
SWITCH
VIDEO
Q862
SWITCH
IC860
AN3592K
0.5H SKEW DET
Q803
3fsc AMP
Q811
BUFFER
Q812
AMP
Q717
AMP
SYNC SEP
V SYNC SEP
Q883
BUFFER
Q810
SWITCH
CN701
SW 9V
GND
PB FM
REC FM
GND
GND
REC C
PB C
SW 5V
COLOR ROT
C SYNC
TO RP-63 BOARD CN802
(See Page 99)
CN703
SECAM ACK
GND
DOP
SKEW ON
SW 5V
PB RF
HEAD SEL
LP/SP
GND (V)


16
17
18
19
20
21
22
23
24
25
26
Q811 BUFFER
Q812 AMP
Q717 AMP
Q719 BUFFER
Q707 EQUALIZER
Q709 EQUALIZER
SW 5V
PB 5V
Q703 PB 5V SWITCH
Q703 DTA143EK
Q723 DTC144EK-T96
Q704,723 GAIN SWITCH
Q704 DTC144EK-T96
Q722 NOISE CANCEL SWITCH
Q722 DTC144EK-T96
9V
IC862 CX20061 SWITCH
Q880 BUFFER
Q881 Q882 AMP
0.5H CCD LEVEL
Q862 SWITCH
Q862 DTC144EK-T96
IC863 LA7213 SYNC SEP
SYNC SEP
V SYNC SEP
Q883 BUFFER
Q883 2SC1623-T1L6
IC860
3592K
Q810 SWITCH
IC802 LA7213 SYNC SEP
Q715,716 SWITCH
Q715 DTC144EK
Q716 DTC144EK
FL701
IN OUT
IC701 AN3231K Y PROCESS
AMP
MUTE
Y/C MIX
SHP
H.P.F
LIM
L.P.F
NOISE CANCEL
LOGIC
FM DEMOD
ENV DET
DROP DET
DERAY
MIX
EQ
DROPOUT CORR
DETAIL LINEARITY
NON-LINEAR EMPHASIS
MAIN EMPHASIS
NON CORR
SYNC SEP
DET
AGC
ATTE
CLAMP
CLIP
REC
PB
EE
RBY LEVEL
DEMOD GAIN
CARRIER
DEVIATION
CLIP DARK
WHITE CLIP
Q721 H.P.F
Q721 2SC1623-T1L6
IC702 CXL-5003P 1H-DERAY CCD
1H CCD
CCD LEVEL
Q705,706 CCD DRIVE
Q711 BUFFER
Q702 BUFFER
CN701
SW 9V
GND
PB FM
REC FM
GND
REC C
PB C
SW 5V
COLOR ROT
C SYNC
TO RP-63 BOARD CN802
(See Page 99)
CN703
SECAM ACK
GND
DOP
SKEW ON
SW 5V
PB RF
HEAD SEL
LP/SP
GND (V)
CN702
SW 9V
RF SWP
GND
V OUT
EDIT
SHP
V PB
Q.VB
C.SYNC
GND
V IN
no mark : REC/PB mode
( ) : REC mode
( ) : PB mode
YC-65 BOARD

- **SIGNAL PATH**

	VIDEO SIGNAL			AUDIO SIGNAL
	CHROMA	Y	Y/CHROMA/DATA	
REC	➡	➡➡	➡➡➡	
PB	⇨	⇨⇨	⇨⇨⇨	

PI-20 (VIDEO SIGNAL SELECTOR), CG-10 (ON SCREEN DISPLAY CONTROLLER) PRINTED WIRING BOARDS

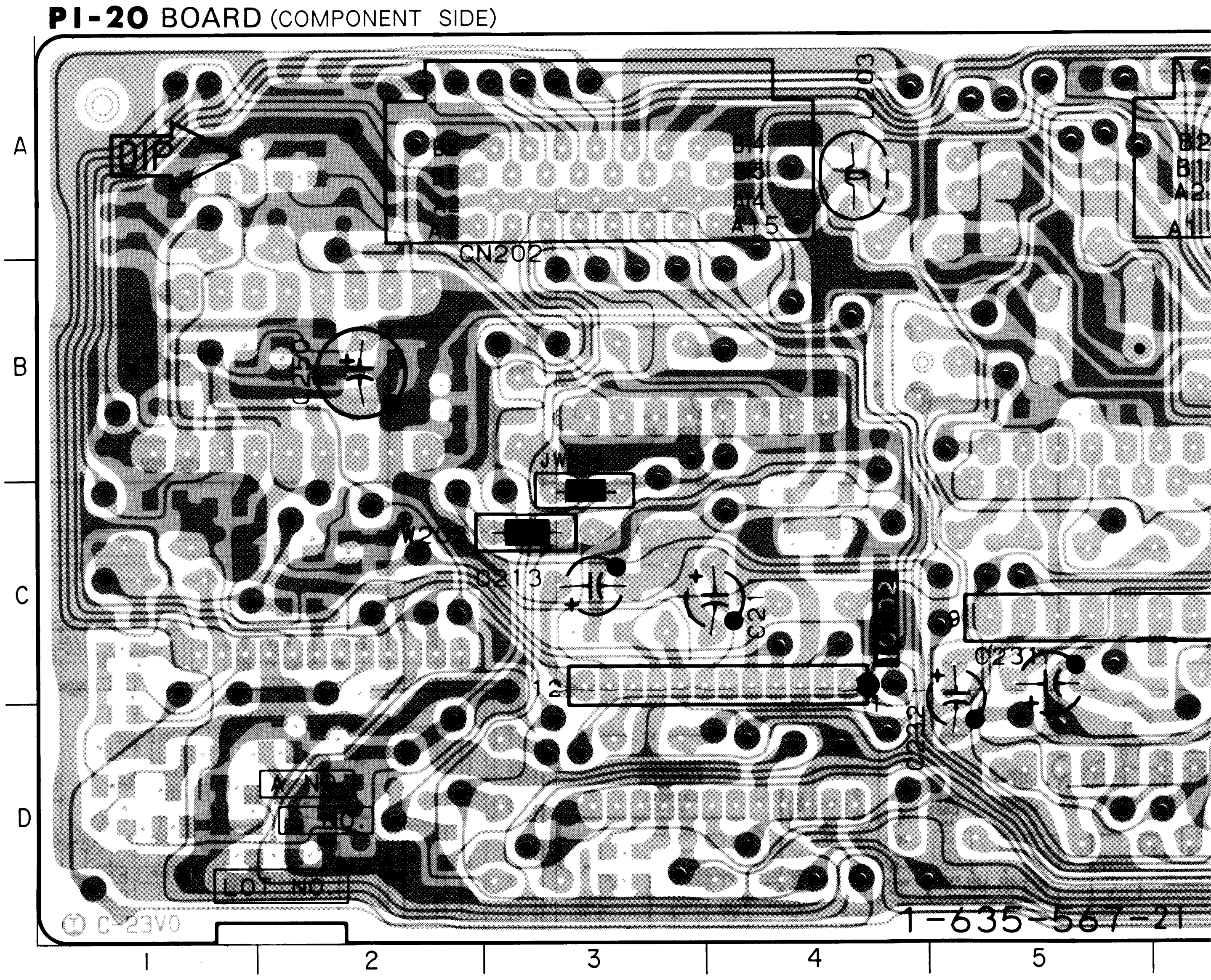
— Ref. No. PI-20 BOARD: 1000 series, CG-10 BOARD: 3000 series —

A-6727-278-A PI-20 BOARD, COMPLETE
****
(Ref. No 1, 000 Series)

< IC >

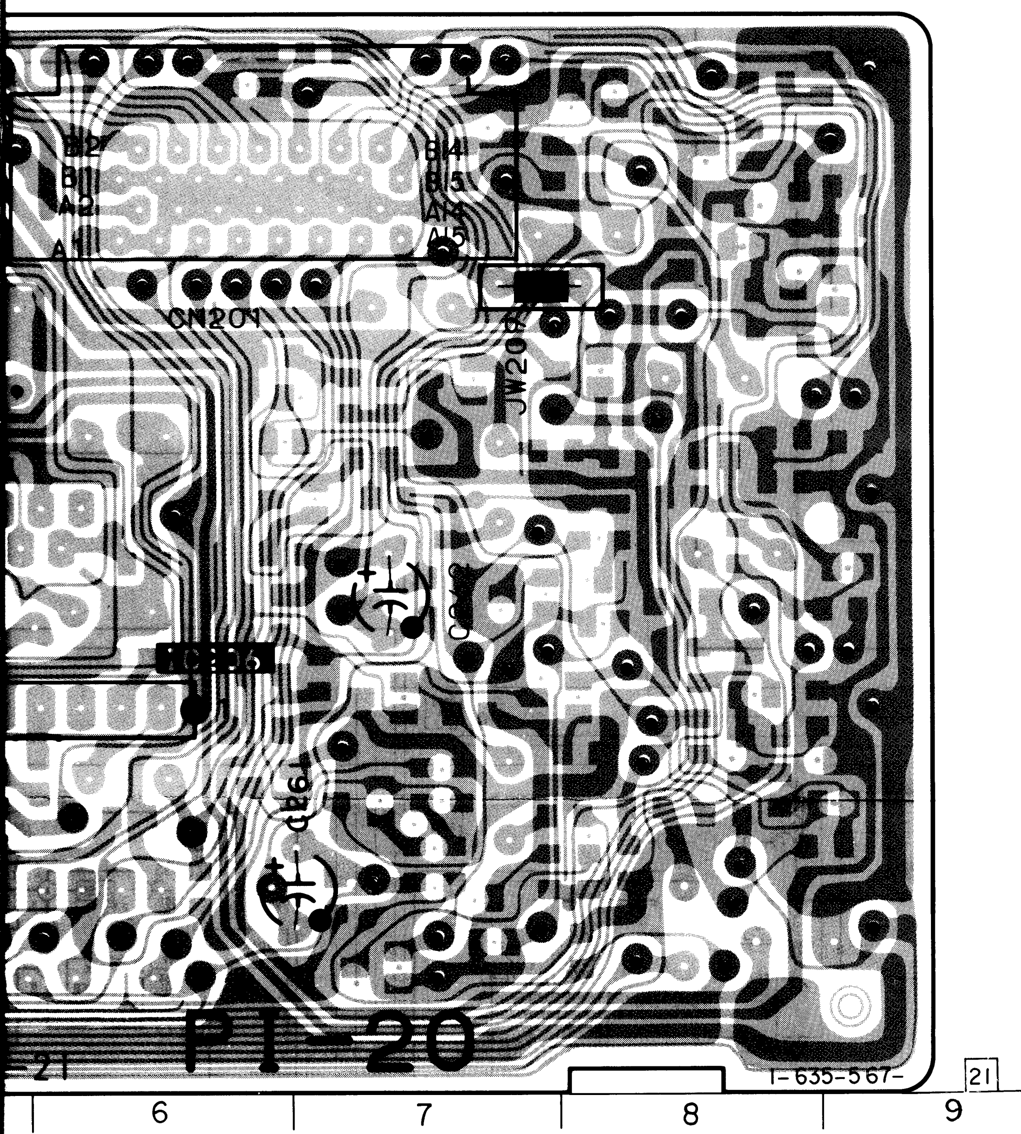
IC202	8-759-822-60	IC	LA7222
IC206	8-759-511-44	IC	LVA522S

PI-20 BOARD	
IC202	D-4
IC206	C-6

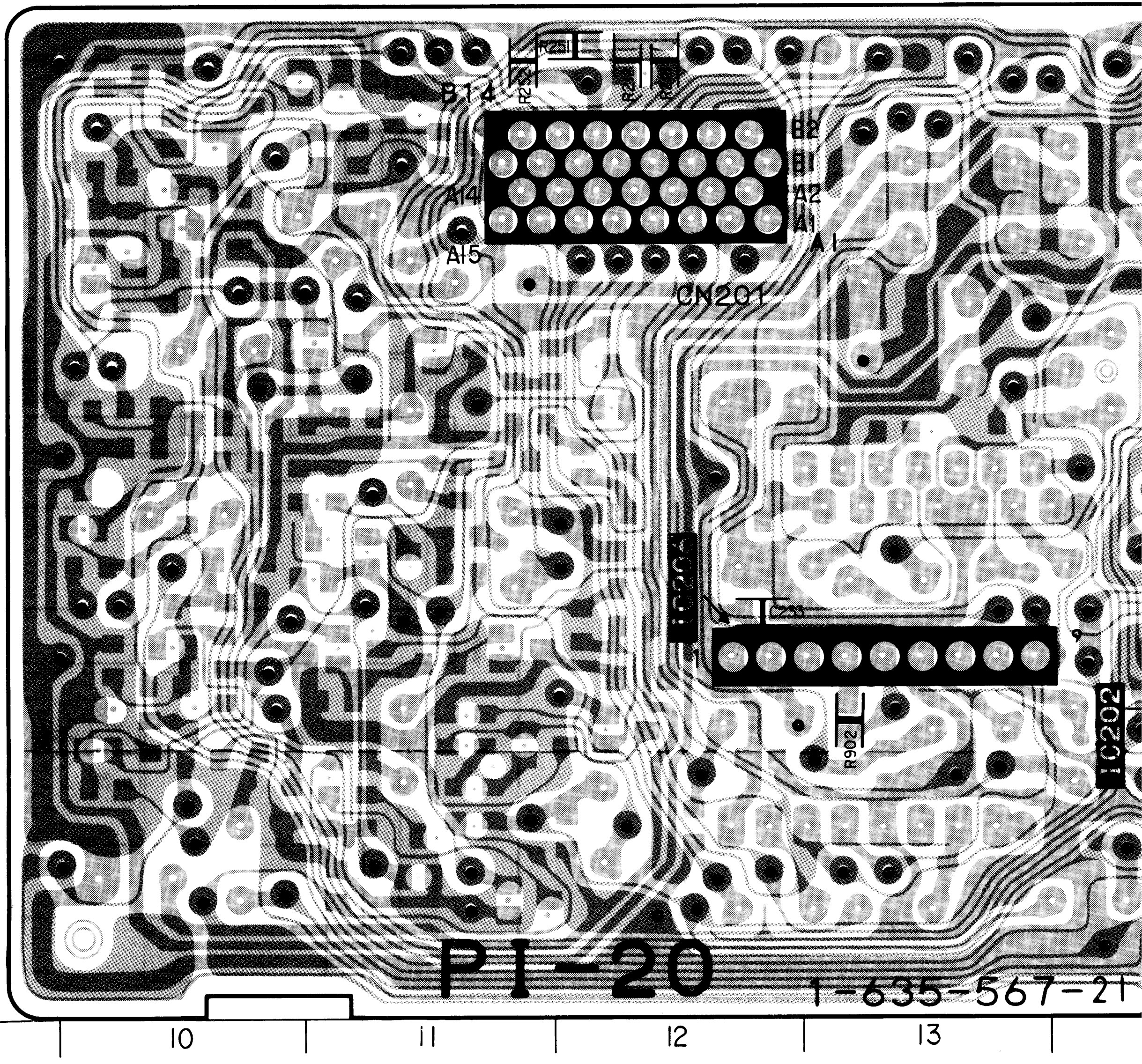


PI-20 BOARD (COMPONENT SIDE)

A
B
C
D
1
2
3
4
5
DIP
CN202
B1
A1
B14
A15
IC203
C213
JW
A NO.
B NO.
LOT NO.
C-23V0
1-635-567-21


B2
B1
A2
A1
B14
B15
A14
A15
CN201
JW209
C212
IC256
C216
PI-20
1-635-567-
21
6
7
8
9

PI-20 BOARD (CONDUCTOR SIDE)


R251
B14
B2
B1
A2
A1
A14
A15
CN201
C255
R902
IC202
9
PI-20
1-635-567-21
10
11
12
13

* A-6727-279-A CG-10 BOARD, COMPLETE (SLV-715/UB)

****

* A-6727-282-A CG-10 BOARD, COMPLETE (SLV-715VP)

****

(Ref. No 3, 000 Series)

< DIODE >

D851	8-719-911-19	DIODE	1SS119
D852	8-719-911-19	DIODE	1SS119

< IC >

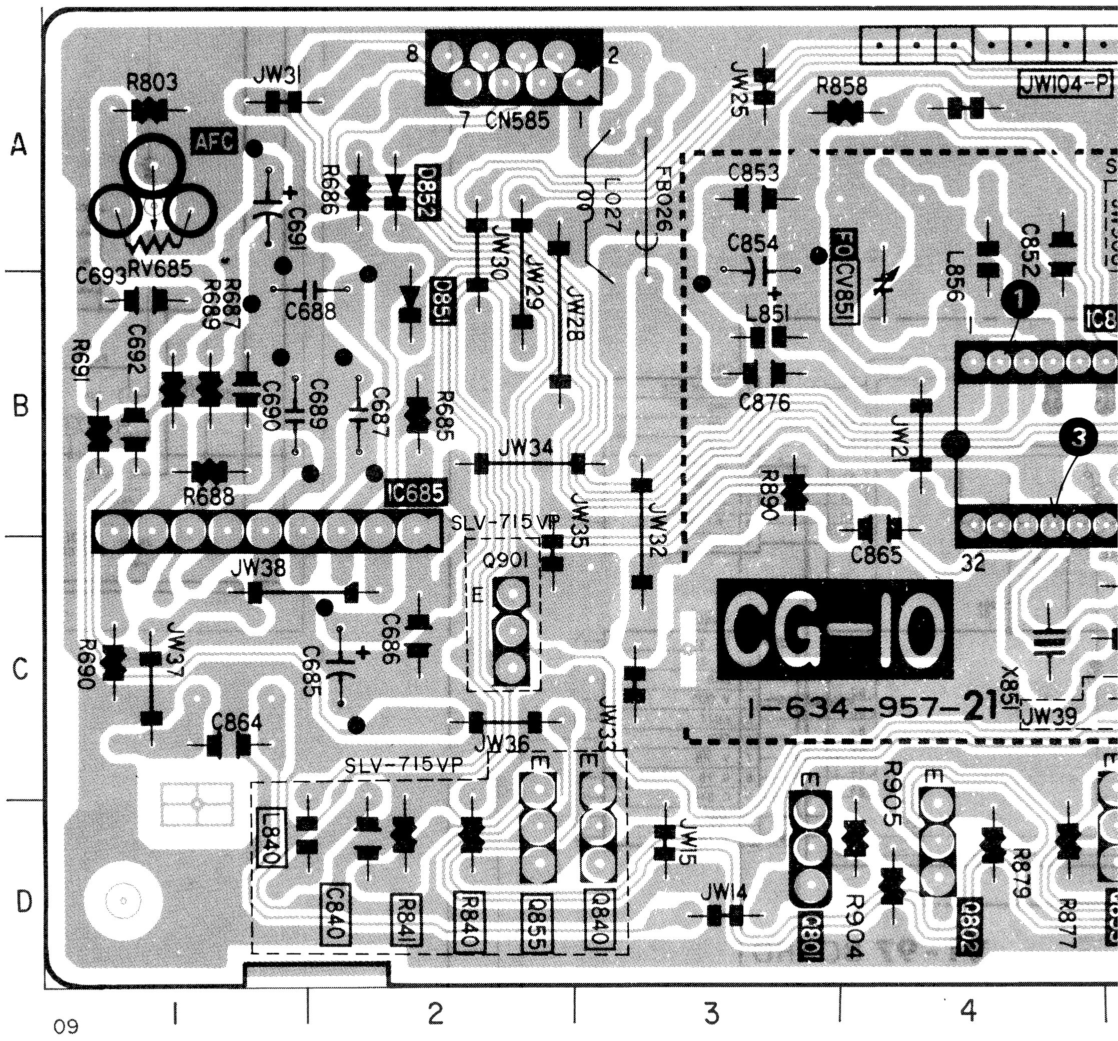
IC685	8-759-996-03	IC	LVA519S
IC851	8-759-634-22	IC	M50554-182SP

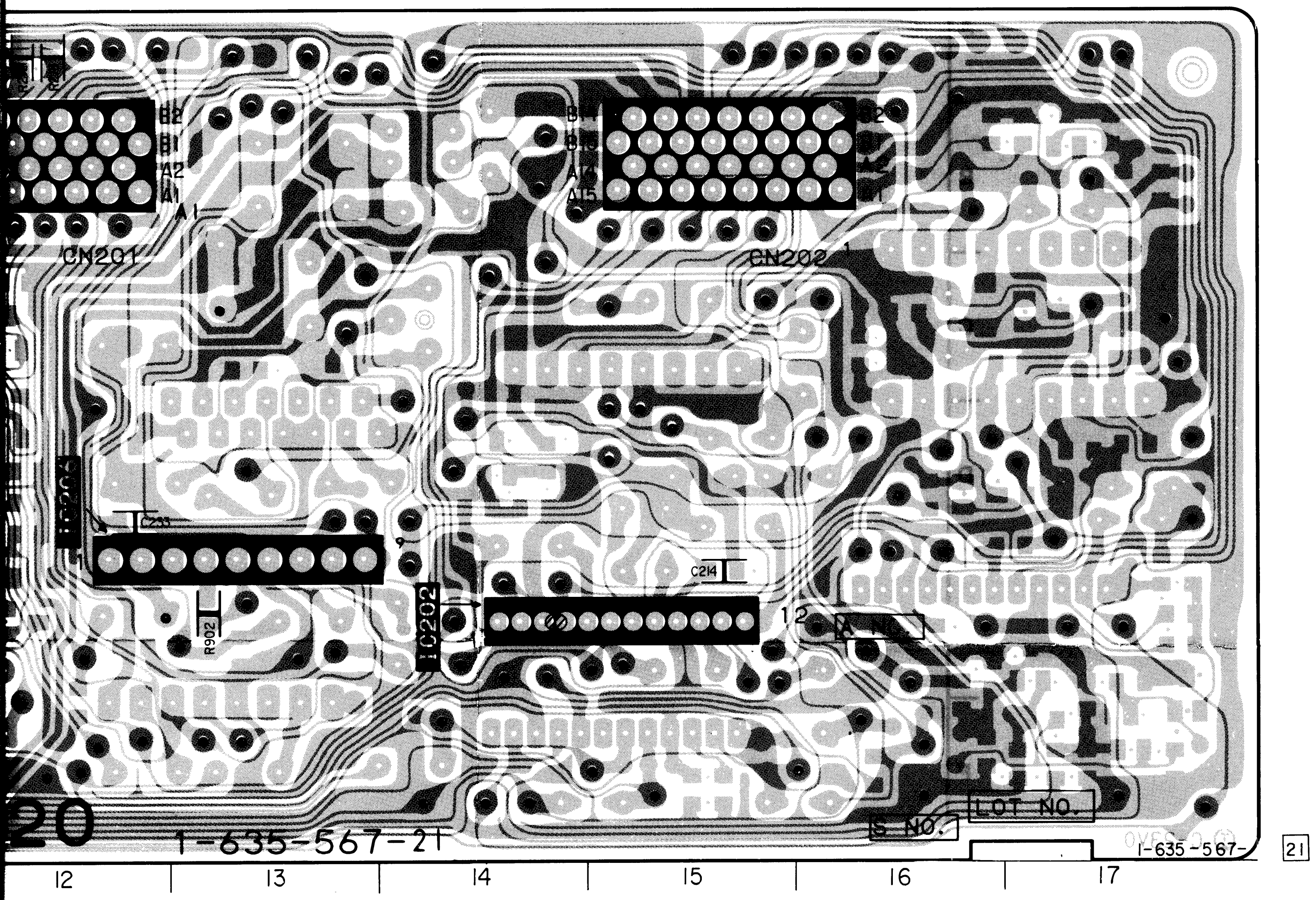
< TRANSISTOR >

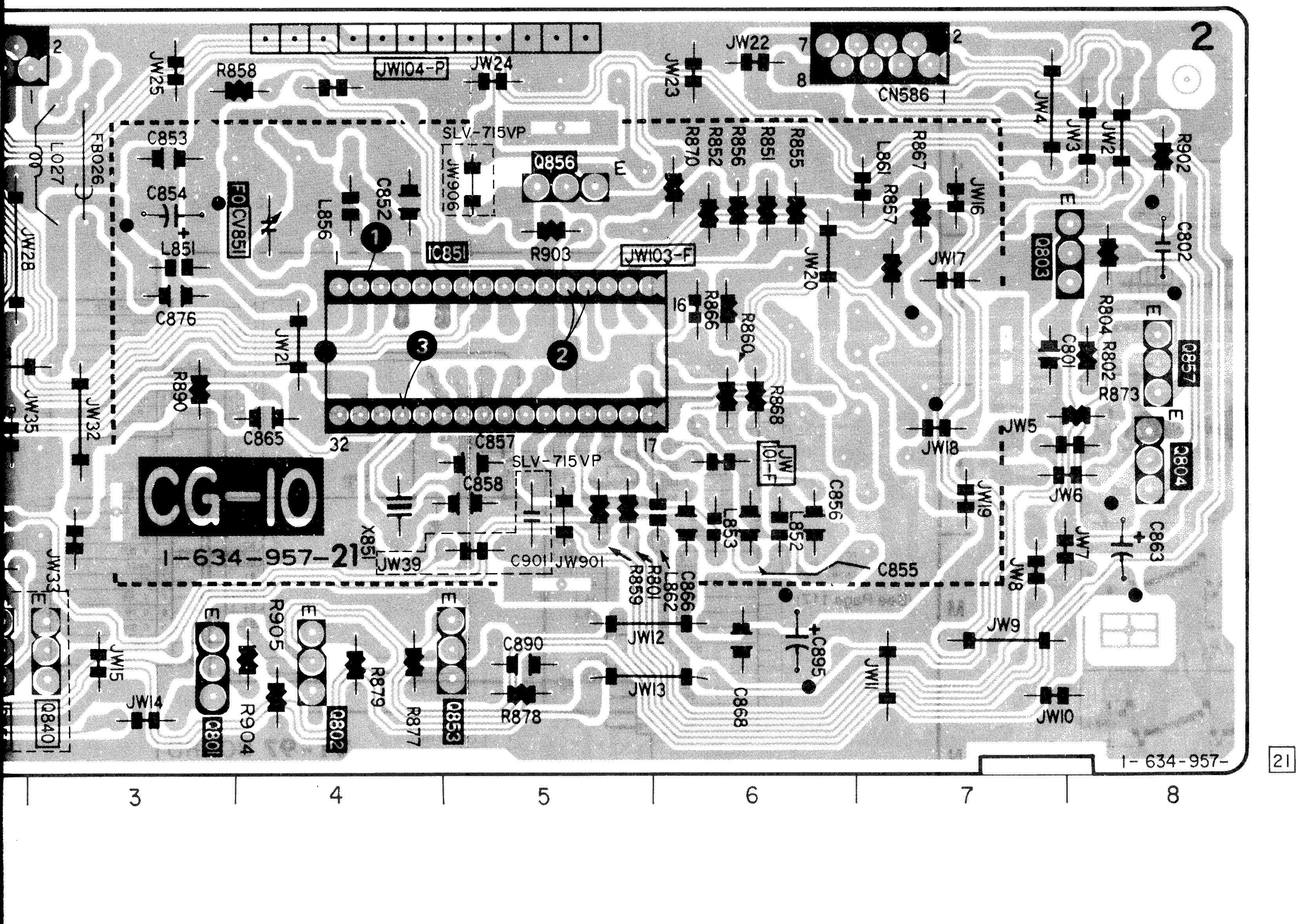
Q801	8-729-900-61	TRANSISTOR	DTA114ES
Q802	8-729-920-70	TRANSISTOR	2SC1740S-QR
Q803	8-729-900-89	TRANSISTOR	DTC144ES
Q804	8-729-900-65	TRANSISTOR	DTA144ES
Q840	8-729-900-61	TRANSISTOR	DTA114ES (SLV-715VP)
Q853	8-729-920-70	TRANSISTOR	2SC1740S-QR
Q855	8-729-423-37	TRANSISTOR	2SC3311A-QRS (SLV-715VP)
Q856	8-729-920-68	TRANSISTOR	2SA933S-QR
Q857	8-729-920-70	TRANSISTOR	2SC1740S-QR
Q901	8-729-900-89	TRANSISTOR	DTC144ES (SLV-715VP)

CG-10	BOARD
D851	B-2
D852	A-2
IC685	B-1
IC851	B-5
Q801	D-3
Q802	D-4
Q803	B-8
Q804	C-8
Q840	D-3
Q853	D-5
Q855	D-2
Q856	A-5
Q857	B-8
Q901	C-2

CG-10 BOARD


A
B
C
D
1
2
3
4
09
R803
JW31
8
2
7 CN585
1
JW25
R858
JW104-P
AFC
R686
D852
RV685
C691
C693
R687
R689
C688
D851
JW30
JW29
JW28
L027
FB026
C853
C854
CV851
L851
L856
C852
C876
R691
C692
C690
C689
C687
R685
R688
JW34
IC685
JW21
R890
JW35
JW32
SLV-715VP
Q901
E
C865
32
JW38
C686
C685
R690
JW37
JW33
C864
JW36
CG-10
1-634-957-21
X851
JW39
SLV-715VP
L840
C840
R841
R840
Q855
Q840
JW15
JW14
Q801
R905
R904
Q802
R879
R877


CN201
CN202
B2
B1
A2
A1
IC202
C214
C233
R902
12
LOT NO.
S NO.
20
1-635-567-21
1-635-567-
21
12
13
14
15
16
17

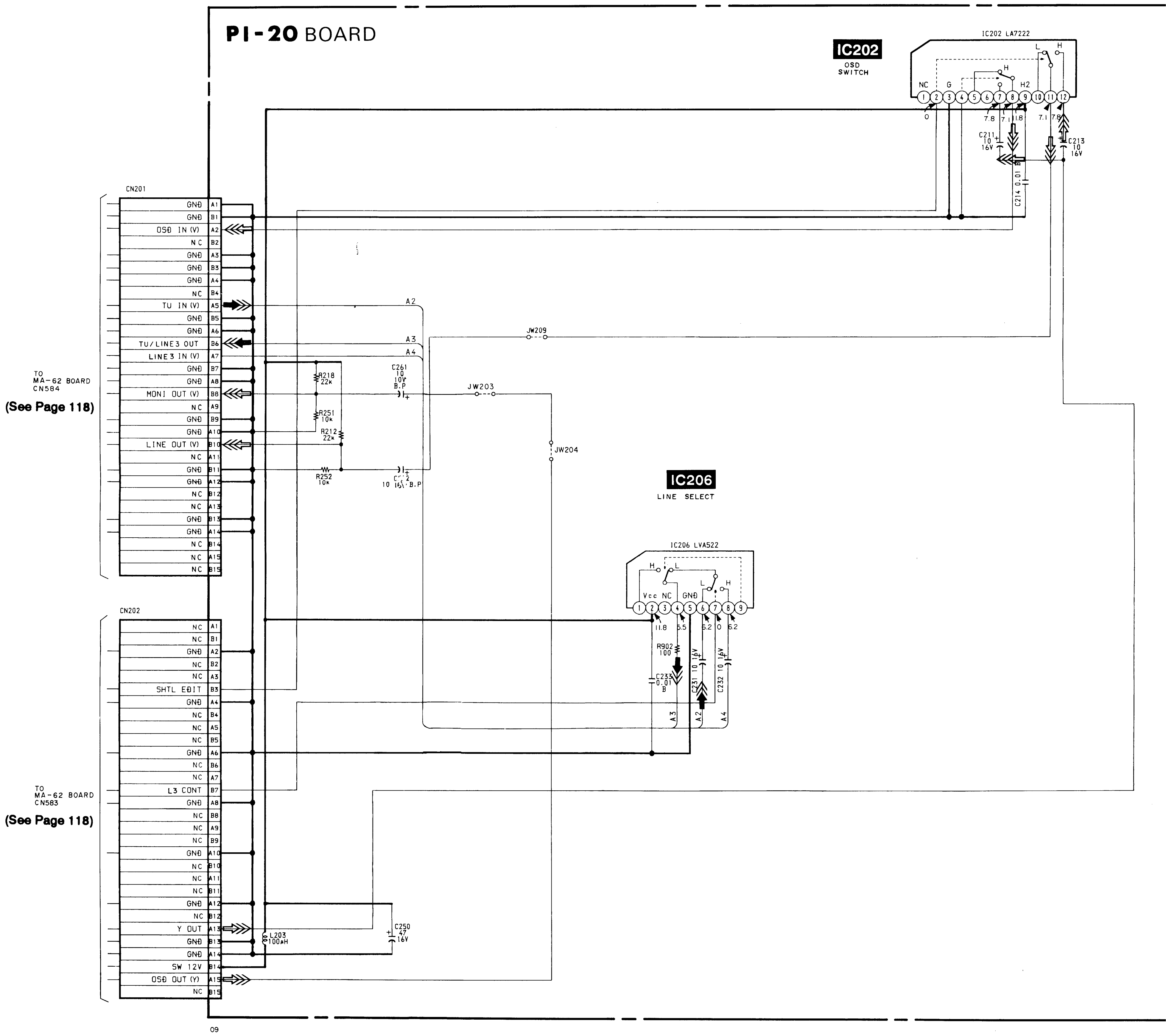

CG-10
1-634-957-21
1-634-957-
21
CN586
IC851
Q856
Q803
Q857
Q804
Q801
Q802
Q853
Q840
SLV-715VP
JW104-P
JW103-F
JW101-F
CV851
L851
L856
L027
FB026
C853
C854
C876
C852
C865
C857
C858
C901
C890
C802
C801
C863
C856
C855
C866
C895
C868
R858
R903
R870
R852
R856
R851
R855
R867
R857
R866
R860
R868
R890
R902
R804
R802
R873
R905
R904
R879
R877
R878
R859
R861
L861
L853
L852
L862
X851
JW22
JW23
JW24
JW25
JW28
JW35
JW32
JW33
JW39
JW901
JW906
JW2
JW3
JW4
JW5
JW6
JW7
JW8
JW9
JW10
JW11
JW12
JW13
JW14
JW15
JW16
JW17
JW18
JW19
JW20
JW21
1
2
3
16
17
32
E
2
7
8
3
4
5
6
7
8

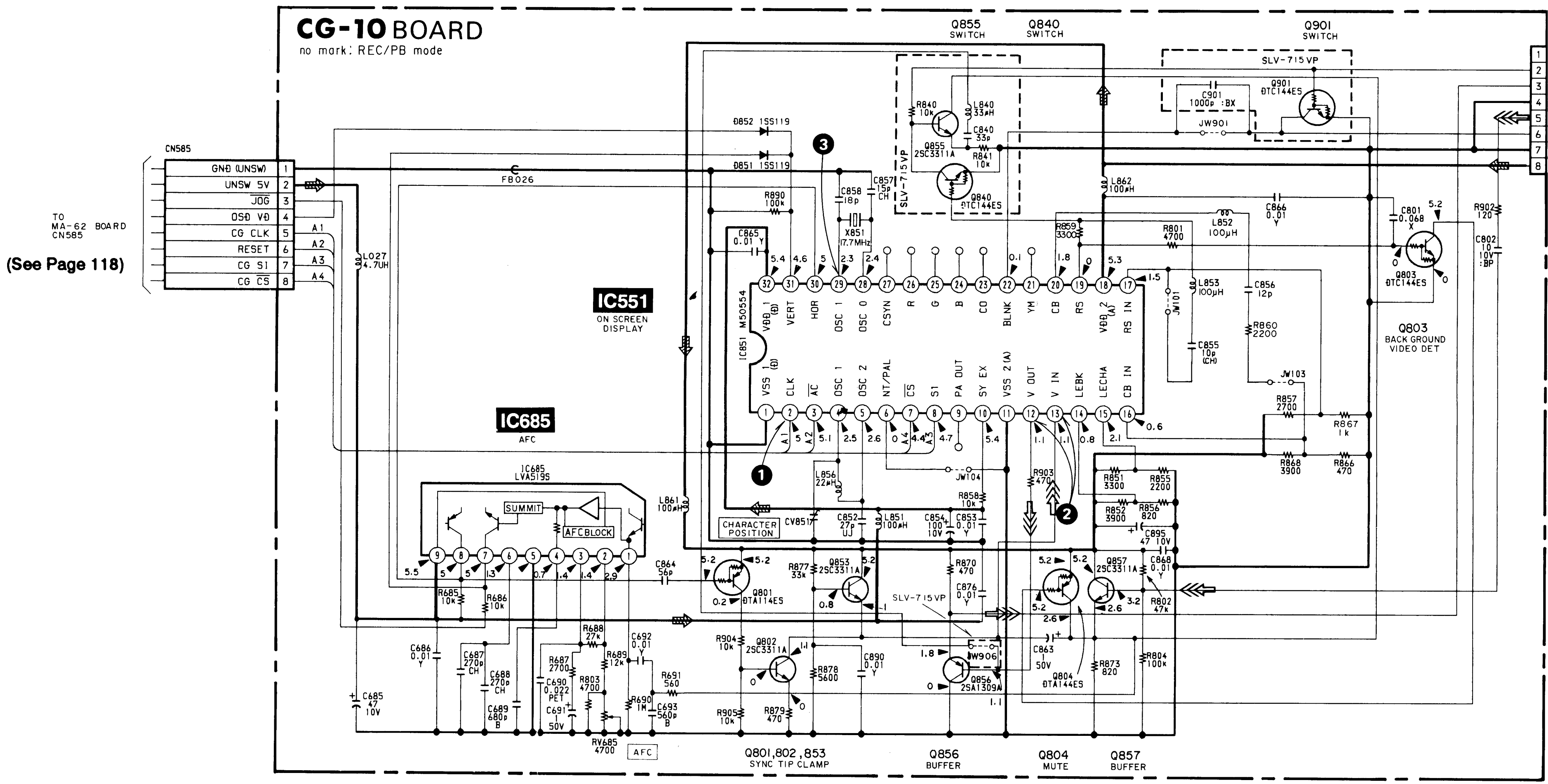
PI-20 (VIDEO SIGNAL SELECTOR), CG-10 (ON SCREEN DISPLAY CONTROLLER) SCHEMATIC DIAGRAMS

1 2 3 4 5 6 7 8 9 10 11

A B C D E F G H I J K L M N O

— Ref. No. PI-20 BOARD: 1000 series, CG-10 BOARD: 3000 series —


PI-20 BOARD
IC202
OSD SWITCH
IC202 LA7222
NC G H2 L H
C211 10 16V
C213 10 16V
C214 0.01 B
CN201
GND A1
GND B1
OSD IN (V) A2
NC B2
GND A3
GND B3
GND A4
NC B4
TU IN (V) A5
GND B5
GND A6
TU/LINE3 OUT B6
LINE3 IN (V) A7
GND B7
GND A8
MONI OUT (V) B8
NC A9
GND B9
GND A10
LINE OUT (V) B10
NC A11
GND B11
GND A12
NC B12
NC A13
GND B13
GND A14
NC B14
NC A15
NC B15
TO MA-62 BOARD CN584
(See Page 118)
A2 A3 A4
JW209
JW203
JW204
R218 22k
R251 10k
R212 22k
R252 10k
C261 10 10V B.P
C262 10 16V B.P
IC206
LINE SELECT
IC206 LVA522
Vcc NC GND H L
11.8 5.5 5.2 0 6.2
R902 100
C233 0.01 B
C231 10 16V
C232 10 16V
CN202
NC A1
NC B1
GND A2
NC B2
NC A3
SHTL EDIT B3
GND A4
NC B4
NC A5
GND A6
NC B6
NC A7
L3 CONT B7
GND A8
NC B8
NC A9
NC B9
GND A10
NC B10
NC A11
NC B11
GND A12
NC B12
Y OUT A13
GND B13
GND A14
SW 12V B14
OSD OUT (Y) A15
NC B15
TO MA-62 BOARD CN583
(See Page 118)
L203 100μH
C250 47 16V
09

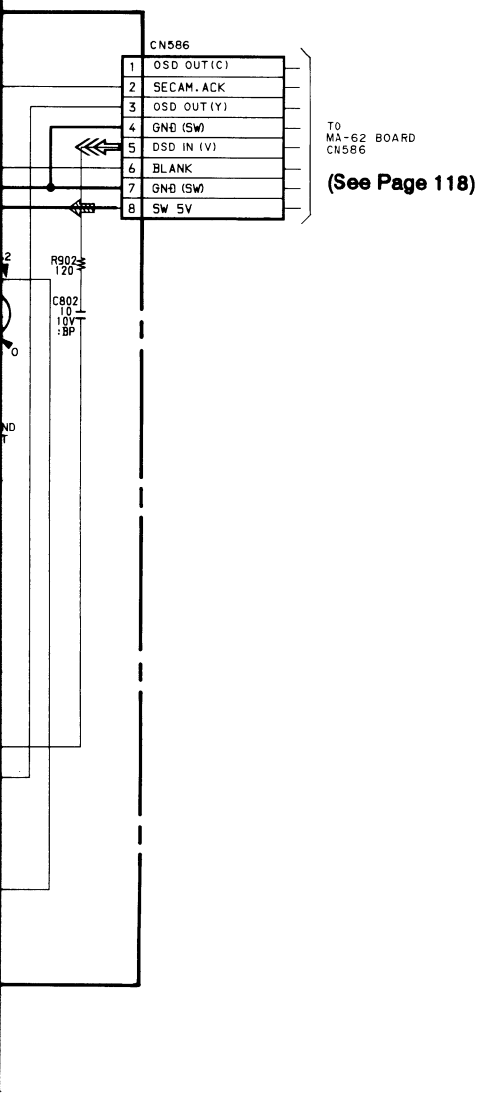

CG-10 BOARD
no mark: REC/PB mode
Q855 SWITCH
Q840 SWITCH
Q901 SWITCH
SLV-715VP
C901 1000p :BX
Q901 DTC144ES
JW901
CN585
GND (UNSW) 1
UNSW 5V 2
JOG 3
OSD VD 4
CG CLK 5
RESET 6
CG SI 7
CG CS 8
TO MA-62 BOARD CN585
(See Page 118)
A1 A2 A3 A4
L027 4.7UH
FB026
D852 1SS119
D851 1SS119
R840 10k
L840 33μH
C840 33p
R841 10k
Q855 2SC3311A
Q840 DTC144ES
SLV-715VP
R890 100k
C858 15p CH
C857 18p
X851 17.7MHz
C865 0.01 Y
L862 100μH
R859 3300
R801 4700
L852 100μH
C866 0.01 Y
C801 0.068 X
R902 120
C802 10 10V :BP
Q803 DTC144ES
Q803 BACK GROUND VIDEO DET
IC551
ON SCREEN DISPLAY
IC851 M50554
VDD 1 (D) VERT HOR OSC 1 OSC 0 CSYN R G B CO BLNK YM CB RS VDD 2 (A) RS IN
VSS 1 (D) CLK AC OSC 1 OSC 2 NT/PAL CS SI PA OUT SY EX VSS 2 (A) V OUT V IN LEBK LECHA CB IN
L853 100μH
C856 12p
JW101
C855 10p (CH)
R860 2200
JW103
R857 2700
R867 1k
R868 3900
R866 470
IC685
AFC
IC685 LVA519S
SUMMIT
AFC BLOCK
L861 100μH
CHARACTER POSITION
CV851
L856 22μH
C852 27p UJ
L851 100μH
C854 100 10V
C853 0.01 Y
JW104
R858 10k
R903 470
R851 3300
R855 2200
R852 3900
R856 820
C895 47 10V
C868 0.01 Y
R802 47k
R804 100k
R873 820
C863 50V
Q804 DTA144ES
Q857 2SC3311A
C864 56p
Q801 DTA114ES
R877 33k
Q853 2SC3311A
R870 470
C876 0.01 Y
SLV-715VP
JW906
Q856 2SA1309A
R904 10k
Q802 2SC3311A
R878 5600
C890 0.01 Y
R905 10k
R879 470
R685 10k
R686 10k
C686 0.01 Y
C687 270p CH
C688 270p CH
C689 680p B
C685 47 10V
R687 2700
C690 0.022 PET
C691 50V
R803 4700
R688 27k
R689 12k
C692 0.01 Y
R691 560
R690 1M
C693 560p B
RV685 4700
AFC
Q801,802,853 SYNC TIP CLAMP
Q856 BUFFER
Q804 MUTE
Q857 BUFFER
09

- **SIGNAL PATH**

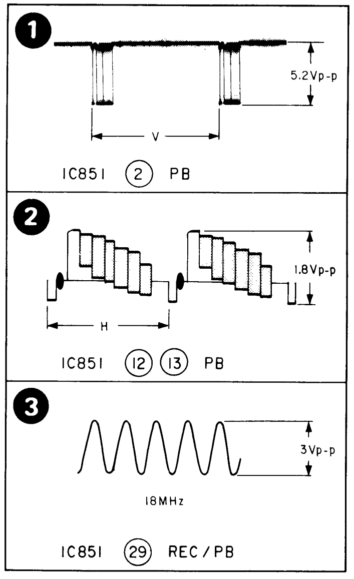
	VIDEO SIGNAL			AUDIO SIGNAL
	CHROMA	Y	Y/CHROMA/DATA	
REC			➡>>	
PB			⇨>>	

- **SIGNAL PATH**

	VIDEO SIGNAL			AUDIO SIGNAL
	CHROMA	Y	Y/CHROMA/DATA	
REC				
PB			⇨>>	


CN586
1 OSD OUT(C)
2 SECAM.ACK
3 OSD OUT(Y)
4 GND (SW)
5 DSD IN (V)
6 BLANK
7 GND (SW)
8 SW 5V
TO MA-62 BOARD CN586
(See Page 118)
R902 120
C802 10 10V :BP
2
O
ND
T

CG-10 BOARD

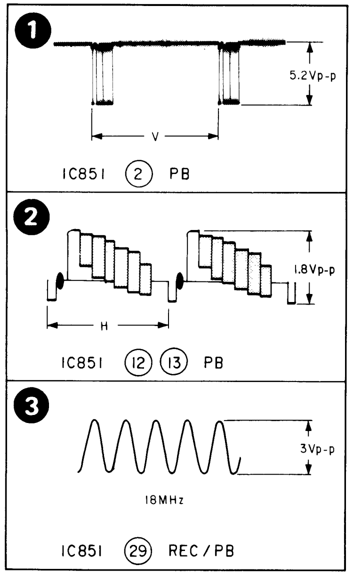

1
5.2Vp-p
V
IC851 (2) PB
2
1.8Vp-p
H
IC851 (12) (13) PB
3
3Vp-p
18MHz
IC851 (29) REC/PB

144

A	AUDIO SIGNAL

A	AUDIO SIGNAL

CG-10 BOARD

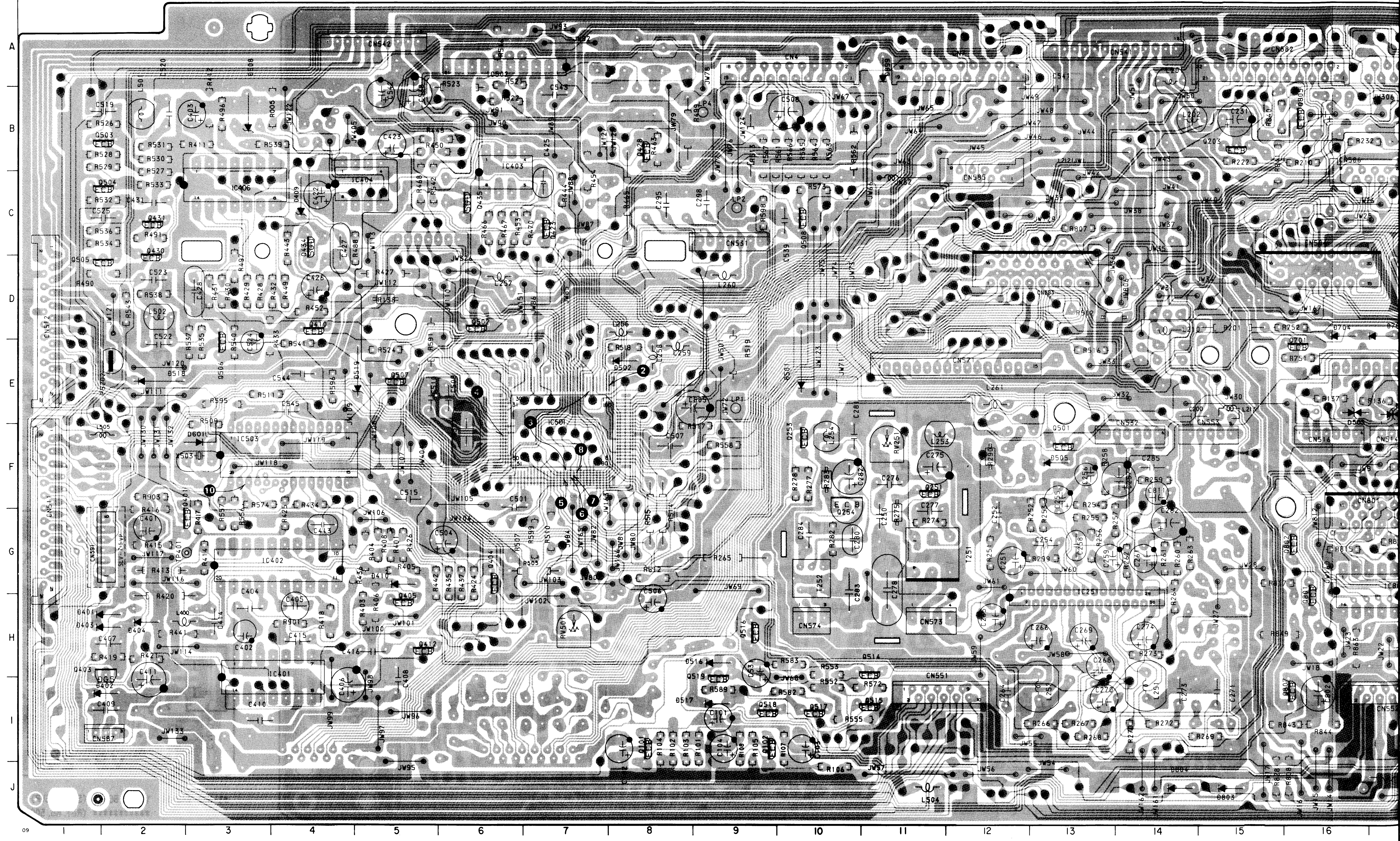


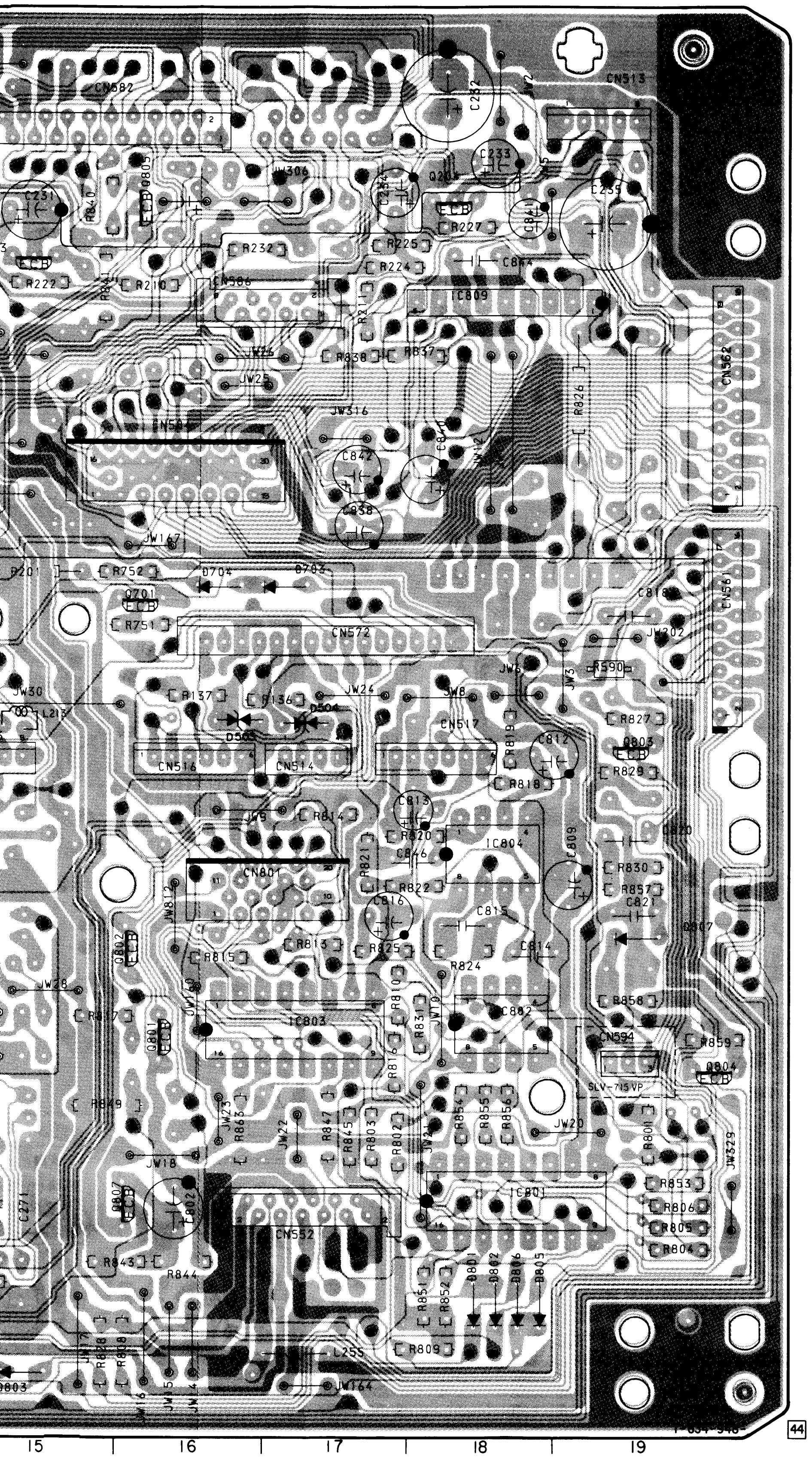
MA-62 (SERVO, SYSTEM CONTROL), SI-10 (SIMULCAST), VP-24 (VPS) PRINTED WIRING BOARDS

— Ref. No. SI-10 BOARD: 5000 series, MA-62 BOARD: 4000 series —

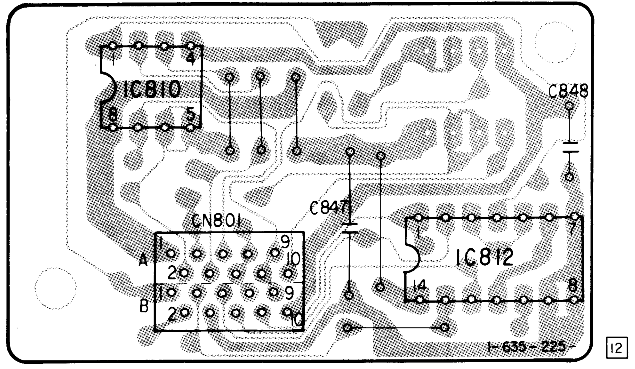
MA-62	BOARD
D401	H-1
D402	I-2
D403	H-1
D404	H-2
D409	C-4
D410	H-5
D501	E-10
D502	E-8
D503	E-16
D504	E-17
D505	F-13
D508	B-3
D516	I-9
D517	I-9
D518	E-2
D519	A-4
D601	F-3
D703	E-17
D704	E-16
D801	I-18
D802	I-18
D803	G-15
D804	G-14
D805	I-18
D806	I-18
D807	I-19
D999	B-11
IC251	H-13
IC401	I-3
IC402	G-3
IC403	C-6
IC404	C-5
IC406	C-3
IC501	F-7
IC502	B-6
IC503	F-3
IC801	I-18
IC802	H-18
IC803	H-16
IC804	G-18
IC809	C-18
Q101	I-8
Q102	I-9
Q203	B-15
Q204	B-8
Q251	G-11
Q253	F-10
Q254	G-10
Q401	G-2
Q403	I-2
Q404	H-6
Q405	H-5
Q410	E-5
Q412	H-5
Q423	C-7
Q428	C-8
Q430	D-2
Q431	C-2
Q432	D-4
Q435	C-6
Q501	F-13
Q502	E-6
Q503	B-2
Q504	C-2
Q505	D-2
Q506	E-3
Q507	E-5
Q508	C-10
Q514	I-11
Q515	I-11
Q516	H-9
Q517	I-10
Q518	I-9
Q519	I-9
Q701	E-15
Q801	H-16
Q802	G-16
Q803	F-19
Q804	H-19
Q805	B-15
Q807	I-16

MA-62 BOARD


A
B
C
D
E
F
G
H
I
J
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
IC401
IC402
IC403
IC404
IC406
IC501
IC503
IC251
CN542
CN4
CN541
CN582
CN531
CN57
CN532
CN553
CN516
CN551
CN573
CN574
CN587
CN591
CN511
CN512
CN585
CN583
CN801
RV501
RV251
LP1
LP2


CN582
CN513
C252
C251
C233
R227
R232
R225
R224
R210
CN586
IC809
R838
R837
R826
CN562
CN584
JW316
C842
C838
JW167
D704
D703
Q701
R752
R751
CN572
R137
R136
D504
D503
CN514
CN516
CN517
R819
IC812
R827
Q805
R829
R818
R814
IC813
R820
C846
R821
IC804
IC809
R830
R857
C821
CN801
R822
C816
C815
R813
R825
R824
C814
IC803
R858
R859
CN594
SLV-715VP
Q804
JW20
R863
R847
R845
R803
R802
R854
R855
R856
JW18
Q807
IC801
R853
R806
R805
R804
CN552
R843
R844
C271
R851
R852
D801
D802
D806
D805
L255
R809
JW164
44
15
16
17
18
19

SI-10 BOARD


IC810
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C848
CN801
C847
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B
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IC812
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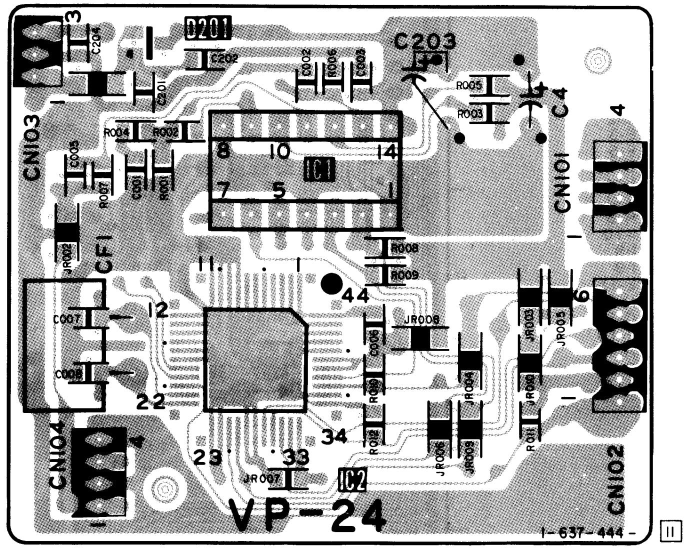
14
8
1-635-225-
12

VP-24 BOARD


D201
C204
C202
C203
C4
CN103
CN101
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IC1
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CF1
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12
22
23
33
34
44
CN104
CN102
IC2
VP-24
R005
R003
R004
R002
R001
R008
R009
JR008
JR007
1-637-444-
11

*1-637-446-11 VP-24 BOARD (SLV-715VP)
*********** (Ref. No. 5000 series)

DIODE

D201 8-719-400-18 DIODE 1S2837

* A-6717-597-A MA-62 BOARD, COMPLETE (SLV-715VP)
****
* A-6717-600-A MA-62 BOARD, COMPLETE (SLV-715/UB)
****
(Ref. No 4, 000 Series)

* 1-635-225-11 SI-10 BOARD (Ref. No 4, 000 Series)
****

< DIODE >

D401	8-719-911-19	DIODE	1SS119
D402	8-719-911-19	DIODE	1SS119
D403	8-719-911-19	DIODE	1SS119
D404	8-719-911-19	DIODE	1SS119
D409	8-719-101-50	DIODE	RD5. 1E-L2
D410	8-719-911-19	DIODE	1SS119
D501	8-719-913-44	DIODE	ERA82-004
D502	8-719-911-19	DIODE	1SS119
D503	8-719-108-12	DIODE	RD9. 1EW
D504	8-719-108-12	DIODE	RD9. 1EW
D505	8-719-911-19	DIODE	1SS119
D508	8-719-101-47	DIODE	RD4. 7E-L2
D516	8-719-911-19	DIODE	1SS119
D517	8-719-911-19	DIODE	1SS119
D518	8-719-200-82	DIODE	11ES2
D519	8-719-109-93	DIODE	RD6. 2ES-B2
D601	8-719-109-93	DIODE	RD6. 2ES-B2
D703	8-719-911-19	DIODE	1SS119
D704	8-719-911-19	DIODE	1SS119
D801	8-719-911-19	DIODE	1SS119
D802	8-719-911-19	DIODE	1SS119
D803	8-719-911-19	DIODE	1SS119
D804	8-719-911-19	DIODE	1SS119
D805	8-719-911-19	DIODE	1SS119
D806	8-719-911-19	DIODE	1SS119
D807	8-719-911-19	DIODE	1SS119
D999	8-719-911-19	DIODE	1SS119

< IC >

IC251	8-759-805-20	IC	LA7297
IC401	8-759-000-49	IC	MC14066BCP
IC402	8-759-632-58	IC	M52435P
IC403	8-759-008-70	IC	LM358N
IC404	8-759-981-85	IC	RC4556D
IC406	8-759-008-71	IC	LM324N
IC501	8-752-815-90	IC	CXP80624-009Q
IC502	8-759-983-45	IC	BA6238A
IC503	8-759-038-87	IC	MC68HC05P7
IC801	8-759-208-08	IC	TC4052BPHB
IC802	8-759-923-90	IC	BA4560
IC803	8-759-208-08	IC	TC4052BPHB
IC804	8-759-923-90	IC	BA4560
IC809	8-759-822-71	IC	LA7954
IC810	8-759-602-49	IC	M5201P
IC812	8-759-040-70	IC	MC14070BCP

< TRANSISTOR >

Q101	8-729-119-78	TRANSISTOR	2SC2785-HFE
Q102	8-729-119-78	TRANSISTOR	2SC2785-HFE
Q203	8-729-920-68	TRANSISTOR	2SA933S-QR
Q204	8-729-920-68	TRANSISTOR	2SA933S-QR
Q251	8-729-102-14	TRANSISTOR	2SD1021
Q253	8-729-119-76	TRANSISTOR	2SA1175-HFE
Q254	8-729-140-96	TRANSISTOR	2SD774-34
Q401	8-729-119-78	TRANSISTOR	2SC2785-HFE
Q403	8-729-115-10	TRANSISTOR	2SK105A-10
Q404	8-729-119-78	TRANSISTOR	2SC2785-HFE
Q405	8-729-900-89	TRANSISTOR	DTC144ES
Q410	8-729-900-65	TRANSISTOR	DTA144ES
Q412	8-729-900-89	TRANSISTOR	DTC144ES
Q423	8-729-119-78	TRANSISTOR	2SC2785-HFE
Q428	8-729-920-68	TRANSISTOR	2SA933S-QR
Q430	8-729-900-89	TRANSISTOR	DTC144ES
Q431	8-729-119-78	TRANSISTOR	2SC2785-HFE
Q434	8-729-601-47	TRANSISTOR	2SK381-B
Q435	8-729-601-47	TRANSISTOR	2SK381-B
Q501	8-729-900-61	TRANSISTOR	DTA114ES
Q502	8-729-900-61	TRANSISTOR	DTA114ES
Q503	8-729-119-78	TRANSISTOR	2SC2785-HFE
Q504	8-729-119-78	TRANSISTOR	2SC2785-HFE
Q505	8-729-119-78	TRANSISTOR	2SC2785-HFE
Q506	8-729-119-78	TRANSISTOR	2SC2785-HFE
Q507	8-729-900-61	TRANSISTOR	DTA114ES
Q508	8-729-620-05	TRANSISTOR	2SC2603-EF
Q514	8-729-119-78	TRANSISTOR	2SC2785-HFE
Q515	8-729-920-68	TRANSISTOR	2SA933S-QR
Q516	8-729-900-80	TRANSISTOR	DTC114ES
Q517	8-729-119-78	TRANSISTOR	2SC2785-HFE
Q518	8-729-900-89	TRANSISTOR	DTC144ES
Q519	8-729-900-65	TRANSISTOR	DTA144ES
Q701	8-729-119-78	TRANSISTOR	2SC2785-HFE
Q801	8-729-900-89	TRANSISTOR	DTC144ES
Q802	8-729-900-89	TRANSISTOR	DTC144ES
Q803	8-729-920-68	TRANSISTOR	2SA933S-QR
Q804	8-729-119-78	TRANSISTOR	2SC2785-HFE
Q805	8-729-119-78	TRANSISTOR	2SC2785-HFE
Q807	8-729-119-78	TRANSISTOR	2SC2785-HFE

* A-6717-597-A MA-62 BOARD, COMPLETE (SLV-715VP)
****
* A-6717-600-A MA-62 BOARD, COMPLETE (SLV-715/UB)
****
(Ref. No 4,000 Series)

* 1-635-225-11 SI-10 BOARD (Ref. No 4,000 Series)
****

< DIODE >

D401	8-719-911-19	DIODE	1SS119
D402	8-719-911-19	DIODE	1SS119
D403	8-719-911-19	DIODE	1SS119
D404	8-719-911-19	DIODE	1SS119
D409	8-719-101-50	DIODE	RD5.1E-L2
D410	8-719-911-19	DIODE	1SS119
D501	8-719-913-44	DIODE	ERA82-004
D502	8-719-911-19	DIODE	1SS119
D503	8-719-108-12	DIODE	RD9.1EW
D504	8-719-108-12	DIODE	RD9.1EW
D505	8-719-911-19	DIODE	1SS119
D508	8-719-101-47	DIODE	RD4.7E-L2
D516	8-719-911-19	DIODE	1SS119
D517	8-719-911-19	DIODE	1SS119
D518	8-719-200-82	DIODE	11ES2
D519	8-719-109-93	DIODE	RD6.2ES-B2
D601	8-719-109-93	DIODE	RD6.2ES-B2
D703	8-719-911-19	DIODE	1SS119
D704	8-719-911-19	DIODE	1SS119
D801	8-719-911-19	DIODE	1SS119
D802	8-719-911-19	DIODE	1SS119
D803	8-719-911-19	DIODE	1SS119
D804	8-719-911-19	DIODE	1SS119
D805	8-719-911-19	DIODE	1SS119
D806	8-719-911-19	DIODE	1SS119
D807	8-719-911-19	DIODE	1SS119
D999	8-719-911-19	DIODE	1SS119

< IC >

IC251	8-759-805-20	IC	LA7297
IC401	8-759-000-49	IC	MC14066BCP
IC402	8-759-632-58	IC	M52435P
IC403	8-759-008-70	IC	LM358N
IC404	8-759-981-85	IC	RC4556D
IC406	8-759-008-71	IC	LM324N
IC501	8-752-815-90	IC	CXP80624-009Q
IC502	8-759-983-45	IC	BA6238A
IC503	8-759-038-87	IC	MC68HC05P7
IC801	8-759-208-08	IC	TC4052BPHB
IC802	8-759-923-90	IC	BA4560
IC803	8-759-208-08	IC	TC4052BPHB
IC804	8-759-923-90	IC	BA4560
IC809	8-759-822-71	IC	LA7954
IC810	8-759-602-49	IC	M5201P
IC812	8-759-040-70	IC	MC14070BCP

< TRANSISTOR >

Q101	8-729-119-78	TRANSISTOR	2SC2785-HFE
Q102	8-729-119-78	TRANSISTOR	2SC2785-HFE
Q203	8-729-920-68	TRANSISTOR	2SA933S-QR
Q204	8-729-920-68	TRANSISTOR	2SA933S-QR
Q251	8-729-102-14	TRANSISTOR	2SD1021
Q253	8-729-119-76	TRANSISTOR	2SA1175-HFE
Q254	8-729-140-96	TRANSISTOR	2SD774-34
Q401	8-729-119-78	TRANSISTOR	2SC2785-HFE
Q403	8-729-115-10	TRANSISTOR	2SK105A-10
Q404	8-729-119-78	TRANSISTOR	2SC2785-HFE
Q405	8-729-900-89	TRANSISTOR	DTC144ES
Q410	8-729-900-65	TRANSISTOR	DTA144ES
Q412	8-729-900-89	TRANSISTOR	DTC144ES
Q423	8-729-119-78	TRANSISTOR	2SC2785-HFE
Q428	8-729-920-68	TRANSISTOR	2SA933S-QR
Q430	8-729-900-89	TRANSISTOR	DTC144ES
Q431	8-729-119-78	TRANSISTOR	2SC2785-HFE
Q434	8-729-601-47	TRANSISTOR	2SK381-B
Q435	8-729-601-47	TRANSISTOR	2SK381-B
Q501	8-729-900-61	TRANSISTOR	DTA114ES
Q502	8-729-900-61	TRANSISTOR	DTA114ES
Q503	8-729-119-78	TRANSISTOR	2SC2785-HFE
Q504	8-729-119-78	TRANSISTOR	2SC2785-HFE
Q505	8-729-119-78	TRANSISTOR	2SC2785-HFE
Q506	8-729-119-78	TRANSISTOR	2SC2785-HFE
Q507	8-729-900-61	TRANSISTOR	DTA114ES
Q508	8-729-620-05	TRANSISTOR	2SC2603-EF
Q514	8-729-119-78	TRANSISTOR	2SC2785-HFE
Q515	8-729-920-68	TRANSISTOR	2SA933S-QR
Q516	8-729-900-80	TRANSISTOR	DTC114ES
Q517	8-729-119-78	TRANSISTOR	2SC2785-HFE
Q518	8-729-900-89	TRANSISTOR	DTC144ES
Q519	8-729-900-65	TRANSISTOR	DTA144ES
Q701	8-729-119-78	TRANSISTOR	2SC2785-HFE
Q801	8-729-900-89	TRANSISTOR	DTC144ES
Q802	8-729-900-89	TRANSISTOR	DTC144ES
Q803	8-729-920-68	TRANSISTOR	2SA933S-QR
Q804	8-729-119-78	TRANSISTOR	2SC2785-HFE
Q805	8-729-119-78	TRANSISTOR	2SC2785-HFE
Q807	8-729-119-78	TRANSISTOR	2SC2785-HFE

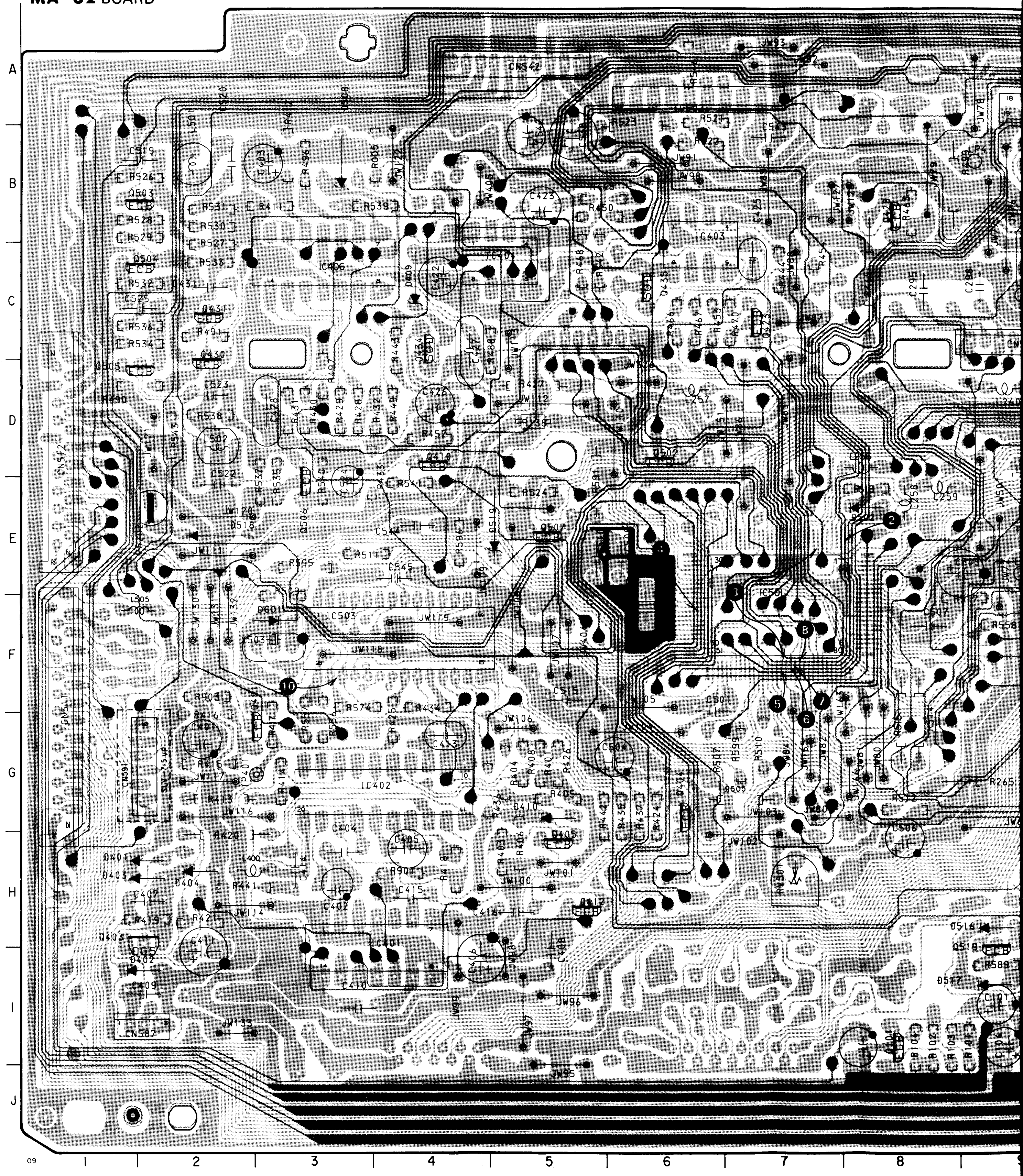
MA-62 (SERVO, SYSTEM CONTROL), SI-10 (SIMULCAST), VP-24 (VPS) PRINTED WIRING BOARDS

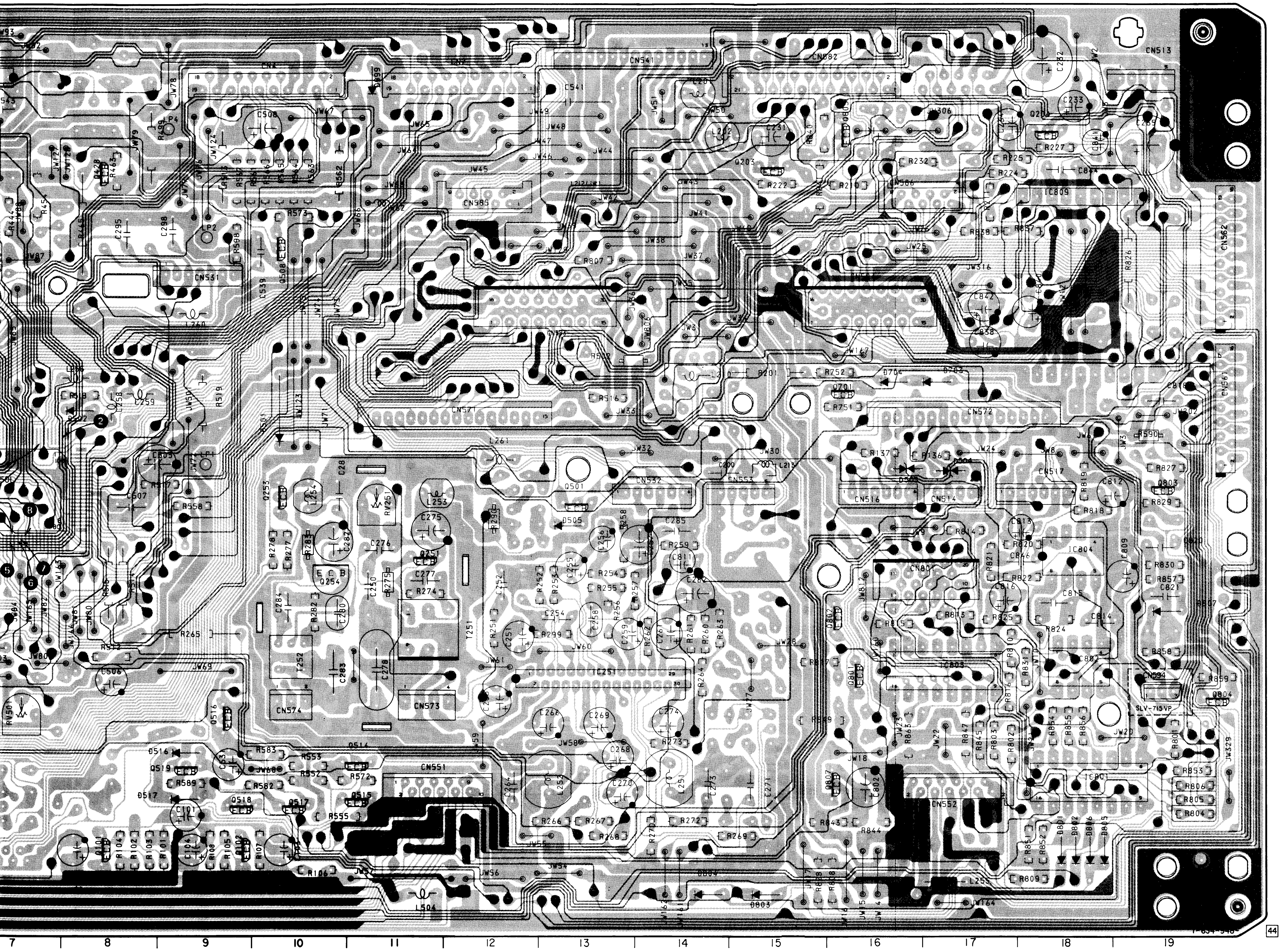
— Ref. No. SI-10 BOARD: 5000 series, MA-62 BOARD: 4000 series —

MA-62 BOARD

D401	H-1
D402	I-2
D403	H-1
D404	H-2
D409	C-4
D410	H-5
D501	E-10
D502	E-8
D503	E-16
D504	E-17
D505	F-13
D508	B-3
D516	I-9
D517	I-9
D518	E-2
D519	A-4
D601	F-3
D703	E-17
D704	E-16
D801	I-18
D802	I-18
D803	G-15
D804	G-14
D805	I-18
D806	I-18
D807	I-19
D999	B-11
IC251	H-13
IC401	I-3
IC402	G-3
IC403	C-6
IC404	C-5
IC406	C-3
IC501	F-7
IC502	B-6
IC503	F-3
IC801	I-18
IC802	H-18
IC803	H-16
IC804	G-18
IC809	C-18
Q101	I-8
Q102	I-9
Q203	B-15
Q204	B-8
Q251	G-11
Q253	F-10
Q254	G-10
Q401	G-2
Q403	I-2
Q404	H-6
Q405	H-5
Q410	E-5
Q412	H-5
Q423	C-7
Q428	C-8
Q430	D-2
Q431	C-2
Q432	D-4
Q435	C-6
Q501	F-13
Q502	E-6
Q503	B-2
Q504	C-2
Q505	D-2
Q506	E-3
Q507	E-5
Q508	C-10
Q514	I-11
Q515	I-11
Q516	H-9
Q517	I-10
Q518	I-9
Q519	I-9
Q701	E-15
Q801	H-16
Q802	G-16
Q803	F-19
Q804	H-19
Q805	B-15
Q807	I-16

MA-62 BOARD




CN513
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CN562
CN561
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CN532
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IC251
IC809
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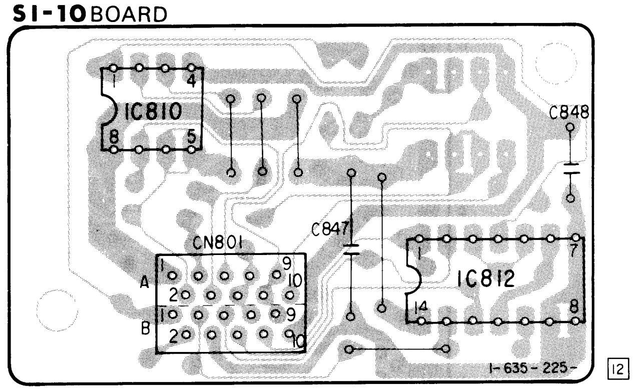
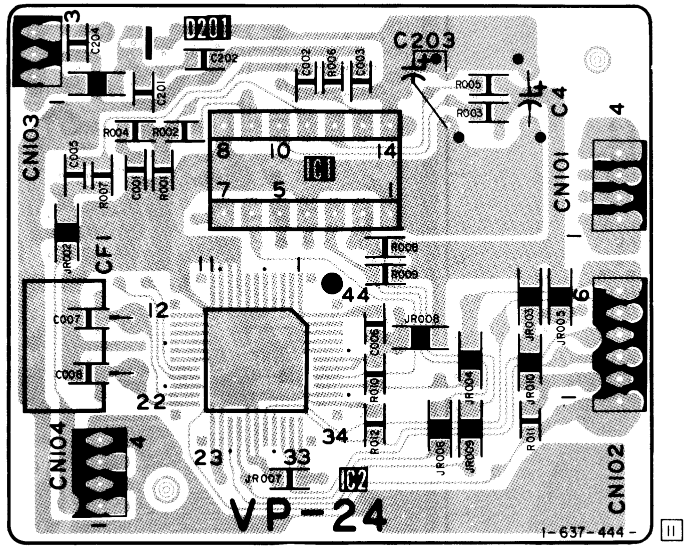
44

SI-10 BOARD


IC810
C848
C847
CN801
IC812
1-635-225-
12

VP-24 BOARD


D201
C203
C4
CN103
CN101
CN104
CN102
IC1
IC2
CF1
VP-24
1-637-444-
11

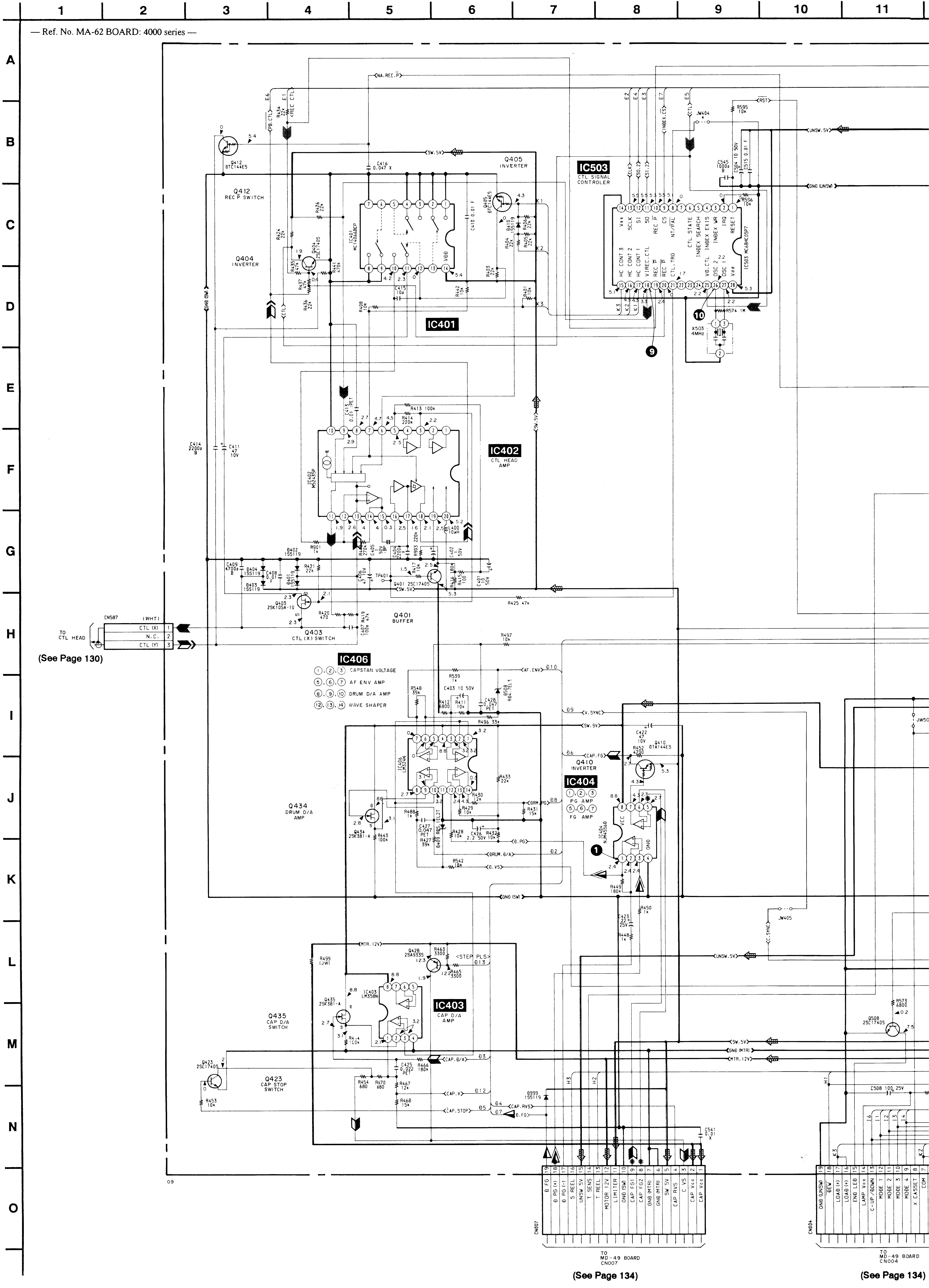
*1-637-446-11 VP-24 BOARD (SLV-715VP)
************ (Ref. No. 5000 series)

DIODE

D201 8-719-400-18 DIODE 1S2837

MA-62 (SERVO, SYSTEM CONTROL) SCHEMATIC DIAGRAMS

— Ref. No. MA-62 BOARD: 4000 series —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I
J
K
L
M
N
O
IC503
CTL SIGNAL CONTROLER
IC503 MC68HC05P7
IC401
IC401 MC14066BCP
IC402
CTL HEAD AMP
IC402 M52435P
IC406
①,②,③ CAPSTAN VOLTAGE
⑤,⑥,⑦ AF ENV AMP
⑧,⑨,⑩ DRUM D/A AMP
⑫,⑬,⑭ WAVE SHAPER
IC406 LM324N
IC404
①,②,③ PG AMP
⑤,⑥,⑦ FG AMP
IC404 NJM4556D
IC403
CAP D/A AMP
IC403 LM358N
Q405 INVERTER
Q412 REC P SWITCH
Q404 INVERTER
Q401 BUFFER
Q403 CTL (X) SWITCH
Q410 INVERTER
Q434 DRUM D/A AMP
Q435 CAP D/A SWITCH
Q423 CAP STOP SWITCH
CN587 (WHT)
CTL (X)
N.C.
CTL (Y)
TO CTL HEAD
X503 4MHz
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<UNSW.5V>
<GND (UNSW)>
<RST>
<CTL>
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<CLK>
<SO.2>
<SI.2>
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<AF.ENV>
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<CAP.FG>
<DRM.PG>
<D.PG>
<DRUM.D/A>
<D.VS>
<C.SYNC>
<MTR.12V>
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<CAP.V>
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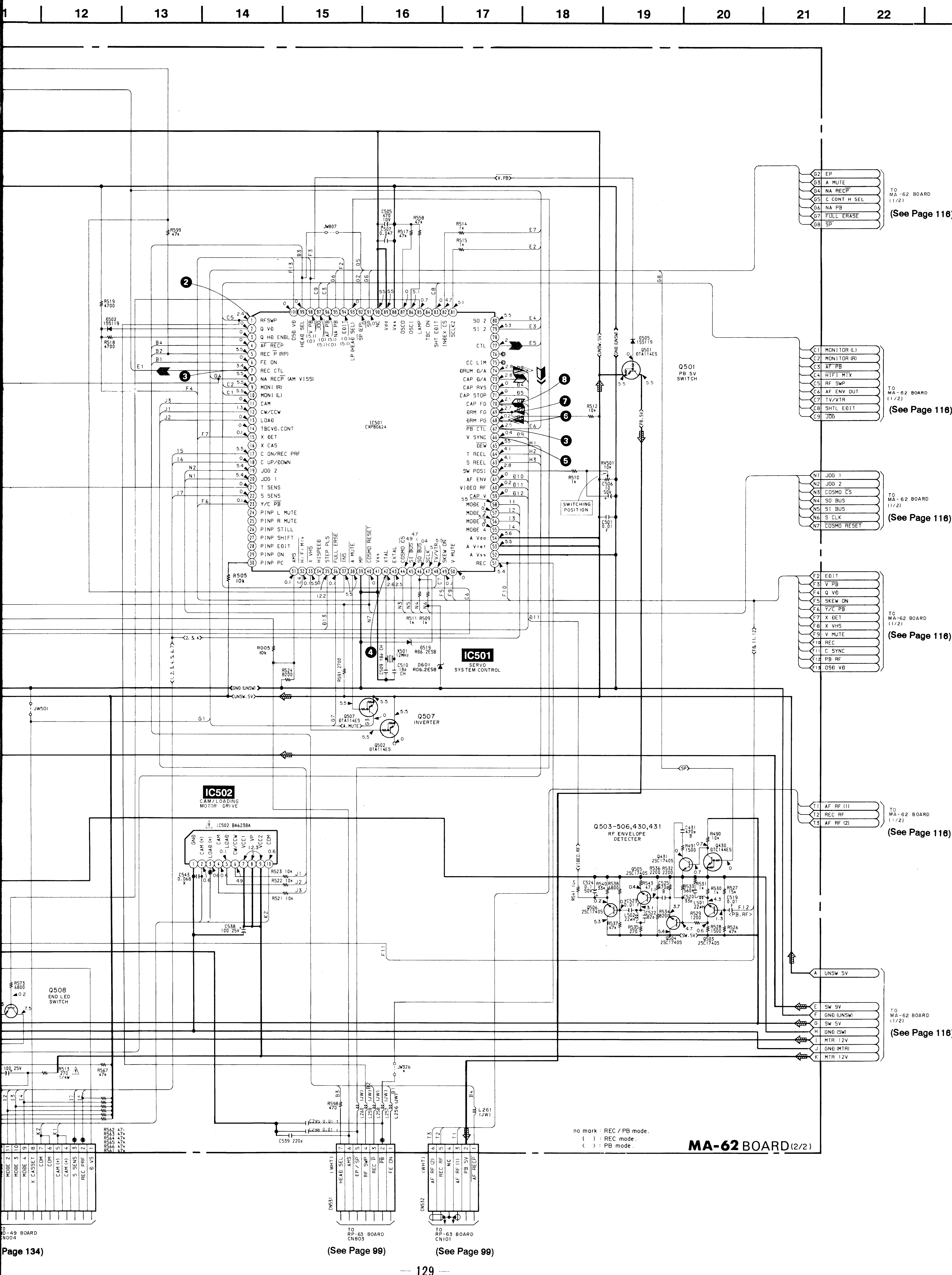
<CAP.RVS>
<D.FG>
<GND (MTR)>
JW404
JW405
CN007
D FG
D PG (+)
D PG (-)
S REEL
UNSW 5V
T SENS
T REEL
MOTOR 12V
LIMITER
GND (SW)
CAP FG1
CAP FG2
GND (MTR)
SW 5V
CAP RVS
C VS
CAP Vcc
CAP Vcc
TO MD-49 BOARD CN007
CN004
GND (UNSW)
BEW
LOAD (+)
LOAD (-)
END LED
LAMP Vcc
C-UP/DOWN
MODE 1
MODE 2
MODE 3
MODE 4
X CASSET
COM
TO MD-49 BOARD CN004

(See Page 130)

(See Page 134)

(See Page 134)


12
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18
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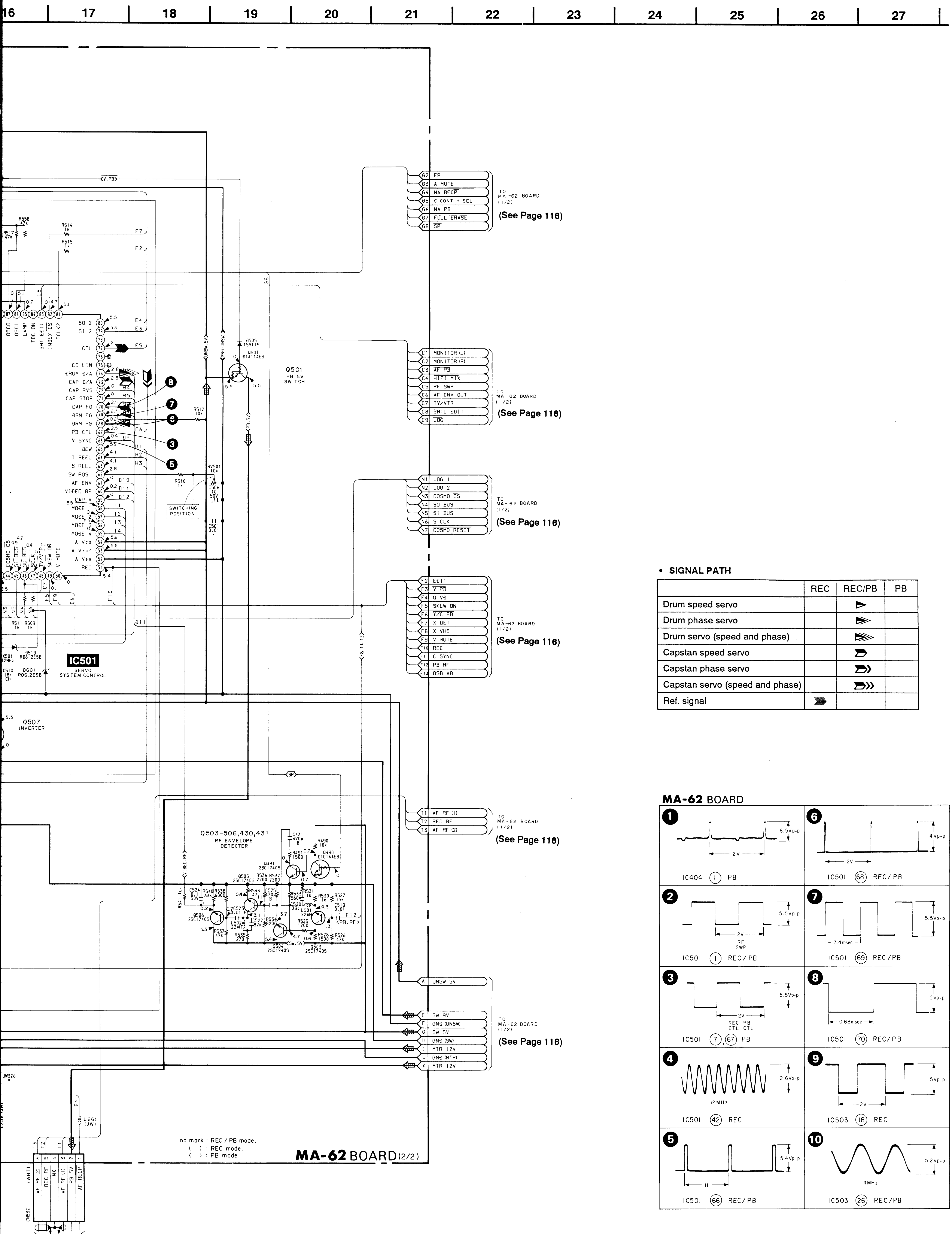
20
21
22
IC501
SERVO
SYSTEM CONTROL
IC501
CXP80624
IC502
CAM/LOADING
MOTOR DRIVE
IC502 BA6238A
Q501
PB 5V
SWITCH
Q507
INVERTER
Q502
DTA114ES
Q508
END LED
SWITCH
Q503-506,430,431
RF ENVELOPE
DETECTER
SWITCHING
POSITION
X501
12MHz
RFSWP
Q VD
Q HD ENBL
AF RECP
REC P (RP)
FE ON
REC CTL
NA RECP (AM VISS)
MONI (R)
MONI (L)
CAM
CW/CCW
LOAD
TBCVD.CONT
X DET
X CAS
C ON/REC PRF
C UP/DOWN
JOG 2
JOG 1
T SENS
S SENS
Y/C PB
PINP L MUTE
PINP R MUTE
PINP STILL
PINP SHIFT
PINP EDIT
PINP ON
PINP PC
SO 2
SI 2
CTL
CC LIM
DRUM D/A
CAP D/A
CAP RVS
CAP STOP
CAP FG
DRM FG
DRM PG
PB CTL
V SYNC
DEW
T REEL
S REEL
SW POSI
AF ENV
VIDEO RF
CAP V
MODE 1
MODE 2
MODE 3
MODE 4
A Vdd
A Vref
A Vss
REC
EP
A MUTE
NA RECP
C CONT H SEL
NA PB
FULL ERASE
SP
TO
MA-62 BOARD
(1/2)
(See Page 116)
MONITOR (L)
MONITOR (R)
AF PB
HIFI MIX
RF SWP
AF ENV OUT
TV/VTR
SHTL EDIT
JOG
JOG 1
JOG 2
COSMO CS
SO BUS
SI BUS
S CLK
COSMO RESET
EDIT
V PB
Q VD
SKEW ON
Y/C PB
X DET
X VHS
V MUTE
REC
C SYNC
PB RF
OSD VD
AF RF (1)
REC RF
AF RF (2)
UNSW 5V
SW 9V
GND (UNSW)
SW 5V
GND (SW)
MTR 12V
GND (MTR)
MTR 12V
HEAD SEL
AMS
EP/SP
RF SWP
REC P
PB
FE ON
AF RF (2)
REC RF
NC
AF RF (1)
PB 5V
AF RECP
CN531
CN532
TO
RP-63 BOARD
CN803
(See Page 99)
TO
RP-63 BOARD
CN101
(See Page 99)
MODE 2
MODE 3
MODE 4
X CASSET
COM
CAM (+)
CAM (+)
S SENS
REC PRF
D VS
TO
D-49 BOARD
CN004
Page 134)

no mark : REC / PB mode.
( ) : REC mode.
( ) : PB mode.

MA-62 BOARD(2/2)


16
17
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20
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23
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25
26
27
<V.PB>
R558 47k
R517 47k
R514 1k
R515 1k
E7
E2
G8
SO 2
SI 2
CTL
CC LIM
DRUM D/A
CAP D/A
CAP RVS
CAP STOP
CAP FG
DRM FG
DRM PG
PB CTL
V SYNC
DEW
T REEL
S REEL
SW POSI
AF ENV
VIDEO RF
CAP V
MODE 1
MODE 2
MODE 3
MODE 4
A Vdd
A Vref
A Vss
REC
OSCO
OSCI
LAMP
TBE ON
SHT EDIT
INDEX CS
SCLK2
COSMO CS
SI BUS
SO BUS
SCLK
TV/VTR
SKEW ON
V MUTE
E4
E3
E5
E6
H1
H2
H3
D10
D11
D12
I1
I2
I3
I4
F10
D11
R511 1k
R509 1k
X501 12MHz
D519 RD6.2ESB
C510 18p CH
D601 RD6.2ESB
IC501
SERVO SYSTEM CONTROL
Q507 INVERTER
<UNSW.5V>
<GND (UNSW)>
D505 1SS119
Q501 DTA114ES
Q501 PB 5V SWITCH
<PB.5V>
R512 10k
RV501 10k
R510 1k
C506 10 50V
SWITCHING POSITION
C501 0.01 F
<F8,11,12>
<SP>
<VIDEO.RF>
Q503-506,430,431
RF ENVELOPE DETECTER
C431 470p B
R490 10k
R491 1500
Q430 DTC144ES
Q431 2SC1740S
Q505 2SC1740S
R536 2200
R532 2200
C524 0.1 50V
R540 33k
R538 6800
R543 47
C525 470p B
R533 560
R531 1k
R530 1k
R527 15k
C519 0.01 F
R541 1k
Q506 2SC1740S
C523 0.01 F
L502 22μH
C522 82p
C520 33p
L501 22μH
F12
<PB.RF>
R537 47k
R535 270
R534 8200
R529 1200
R528 1500
R526 47k
Q504 2SC1740S
<SW.5V>
Q503 2SC1740S
G2 EP
G3 A MUTE
G4 NA RECP
G5 C CONT H SEL
G6 NA PB
G7 FULL ERASE
G8 SP
TO MA-62 BOARD (1/2)
(See Page 116)
C1 MONITOR (L)
C2 MONITOR (R)
C3 AF PB
C4 HIFI MIX
C5 RF SWP
C6 AF ENV OUT
C7 TV/VTR
C8 SHTL EDIT
C9 JOG
TO MA-62 BOARD (1/2)
(See Page 116)
N1 JOG 1
N2 JOG 2
N3 COSMO CS
N4 SO BUS
N5 SI BUS
N6 S CLK
N7 COSMO RESET
TO MA-62 BOARD (1/2)
(See Page 116)
F2 EDIT
F3 V PB
F4 Q VD
F5 SKEW ON
F6 Y/C PB
F7 X DET
F8 X VHS
F9 V MUTE
F10 REC
F11 C SYNC
F12 PB RF
F13 OSD VD
TO MA-62 BOARD (1/2)
(See Page 116)
T1 AF RF (1)
T2 REC RF
T3 AF RF (2)
TO MA-62 BOARD (1/2)
(See Page 116)
A UNSW 5V
E SW 9V
F GND (UNSW)
G SW 5V
H GND (SW)
I MTR 12V
J GND (MTR)
K MTR 12V
TO MA-62 BOARD (1/2)
(See Page 116)
JW326
B4
L261 (JW)
T3
T2
T1
(WHT)
AF RF (2)
REC RF
NC
AF RF (1)
PB 5V
AF RECP
CN552
TO RP-63 BOARD CN101
(See Page 99)
no mark : REC / PB mode.
( ) : REC mode.
< > : PB mode.
MA-62 BOARD (2/2)

- **SIGNAL PATH**

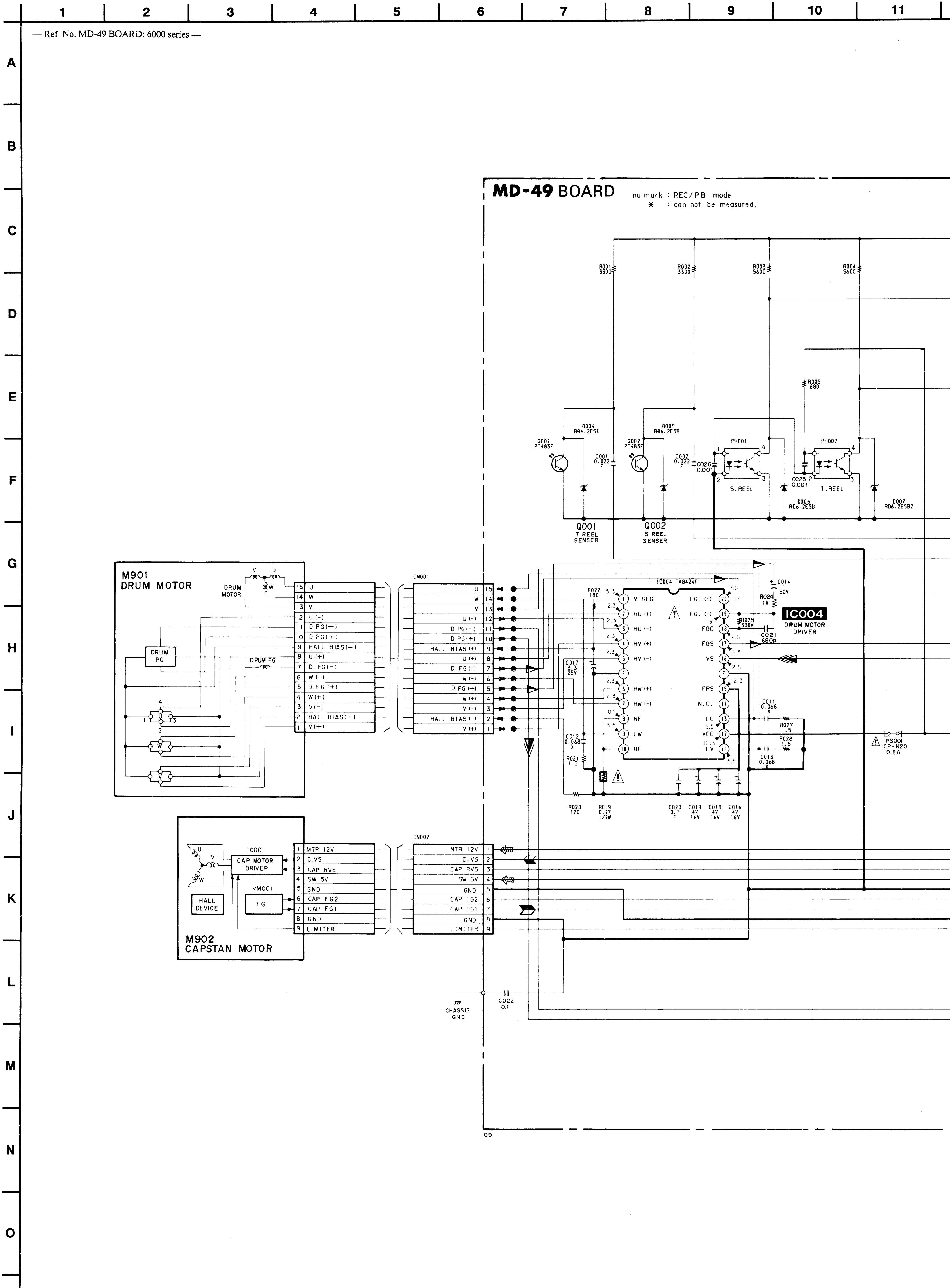
	REC	REC/PB	PB
Drum speed servo		▷	
Drum phase servo		▷>	
Drum servo (speed and phase)		▷>>	
Capstan speed servo		➢	
Capstan phase servo		➢»	
Capstan servo (speed and phase)		➢»»	
Ref. signal	➤		

MA-62 BOARD

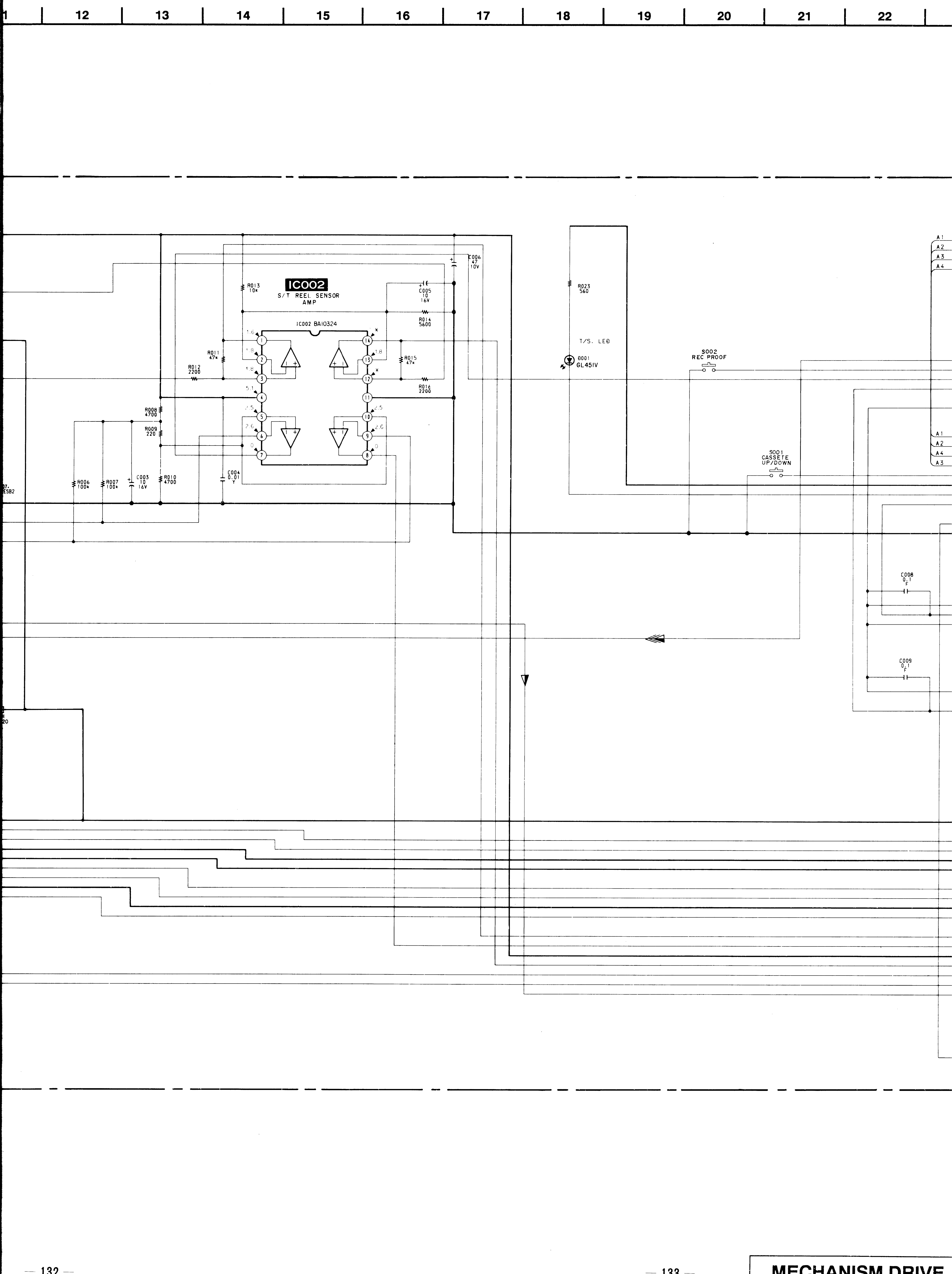
❶
6.5Vp-p
2V
IC404 ① PB
❻
4Vp-p
2V
IC501 (68) REC/PB
❷
5.5Vp-p
2V
RF SWP
IC501 ① REC/PB
❼
5.5Vp-p
3.4msec
IC501 (69) REC/PB
❸
5.5Vp-p
2V
REC CTL
PB CTL
IC501 ⑦,(67) PB
❽
5Vp-p
0.68msec
IC501 (70) REC/PB
❹
2.6Vp-p
12MHz
IC501 (42) REC
❾
5Vp-p
2V
IC503 ⑱ REC
❺
5.4Vp-p
H
IC501 (66) REC/PB
❿
5.2Vp-p
4MHz
IC503 ㉖ REC/PB

MD-49 (MECHANISM DRIVE) SCHEMATIC DIAGRAM

— Ref. No. MD-49 BOARD: 6000 series —

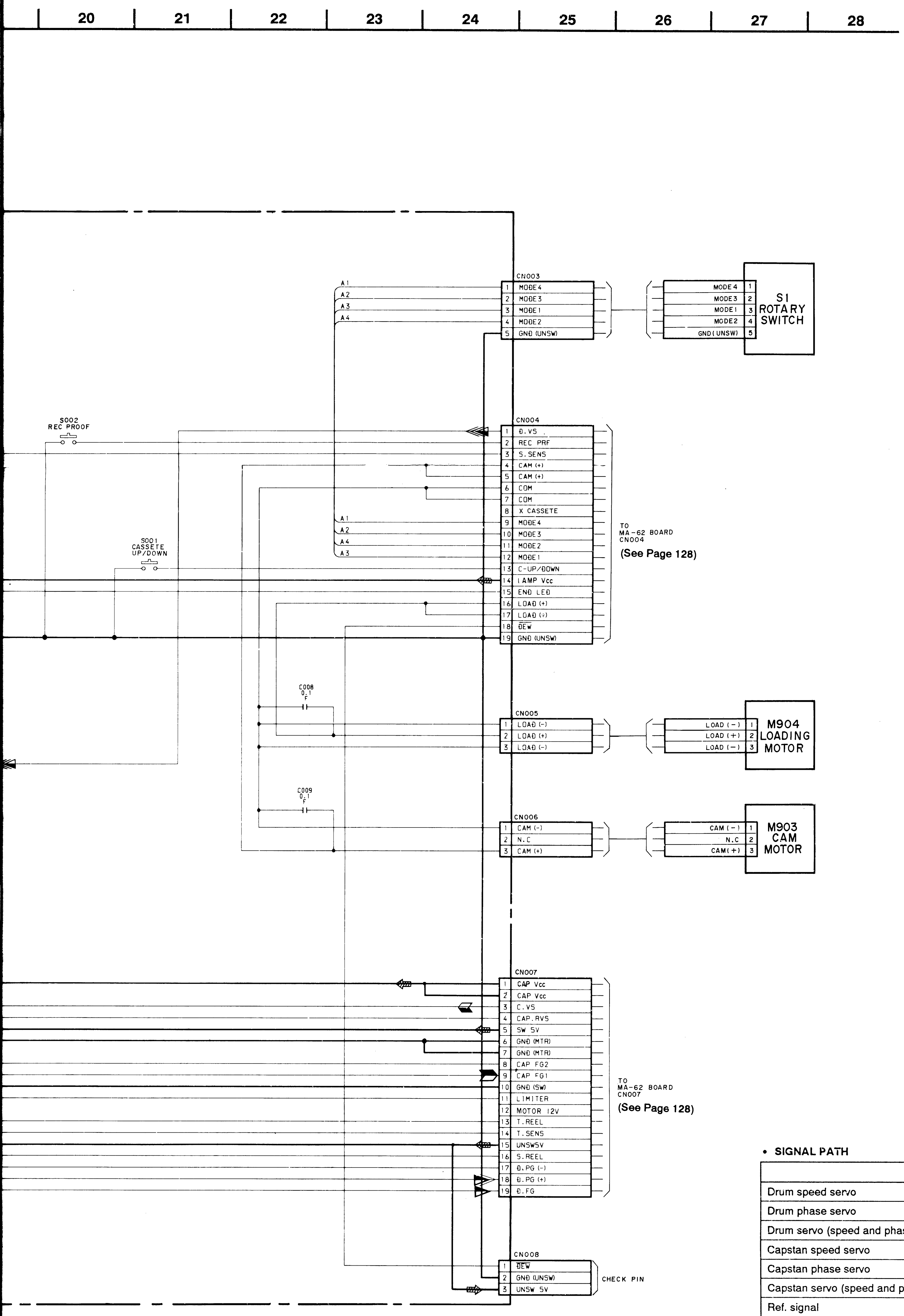

1
2
3
4
5
6
7
8
9
10
11
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
MD-49 BOARD
no mark : REC/PB mode
* : can not be measured.
R001 3300
R002 3300
R003 5600
R004 5600
R005 680
D004 R06.2ESB
D005 R06.2ESB
D006 R06.2ESB
D007 R06.2ESB2
Q001 PT483F
Q002 PT483F
C001 0.022 F
C002 0.022 F
C026 0.001
C025 0.001
PH001
PH002
S.REEL
T.REEL
Q001 T REEL SENSER
Q002 S REEL SENSER
M901 DRUM MOTOR
DRUM MOTOR
DRUM PG
DRUM FG
U
V
W
15 U
14 W
13 V
12 U(-)
11 D PG(-)
10 D PG(+)
9 HALL BIAS(+)
8 U(+)
7 D FG(-)
6 W(-)
5 D FG(+)
4 W(+)
3 V(-)
2 HALL BIAS(-)
1 V(+)
CN001
IC004 TA8424F
1 V REG
2 HU (+)
3 HU (-)
4 HV (+)
5 HV (-)
6 HW (+)
7 HW (-)
8 NF
9 LW
10 RF
20 FG1 (+)
19 FG1 (-)
18 FGO
17 FGS
16 VS
15 FRS
14 N.C.
13 LU
12 VCC
11 LV
F
5.3
2.3
0.1
5.5
2.6
2.5
2.8
12.3
IC004 DRUM MOTOR DRIVER
R022 180
R024 1k
R025 330k
C014 1 50V
C021 680p
C017 3.3 25V
C011 0.068 X
C012 0.068 X
C013 0.068 X
R021 1.5
R027 1.5
R028 1.5
R020 120
R019 0.47 1/4W
C020 0.1 F
C019 47 16V
C018 47 16V
C016 47 16V
PS001 ICP-N20 0.8A
M902 CAPSTAN MOTOR
IC001 CAP MOTOR DRIVER
RM001
FG
HALL DEVICE
1 MTR 12V
2 C.VS
3 CAP RVS
4 SW 5V
5 GND
6 CAP FG2
7 CAP FG1
8 GND
9 LIMITER
CN002
CHASSIS GND
C022 0.1
09

MECHANISM DRIVE MECHANISM DRIVE



11
12
13
14
15
16
17
18
19
20
21
22
IC002
S/T REEL SENSOR AMP
IC002 BA10324
R013 10k
R011 47k
R012 2200
R008 4700
R009 220
R006 100k
R007 100k
C003 10 16V
R010 4700
C004 0.01 Y
C005 10 16V
C006 47 10V
R014 5600
R015 47k
R016 2200
1.6
1.8
1.8
5.1
2.5
2.6
0
*
1.8
*
2.5
2.6
0
1
2
3
4
5
6
7
8
9
10
11
12
13
14
07.
ESB2
20
R023 560
T/S. LED
D001 GL451V
S002 REC PROOF
S001 CASSETE UP/DOWN
C008 0.1 F
C009 0.1 F
A1
A2
A3
A4
A1
A2
A4
A3

MECHANISM DRIVE


20
21
22
23
24
25
26
27
28
CN003
1 MODE4
2 MODE3
3 MODE1
4 MODE2
5 GND (UNSW)
A1
A2
A3
A4
MODE4 1
MODE3 2
MODE1 3
MODE2 4
GND(UNSW) 5
S1 ROTARY SWITCH
S002 REC PROOF
CN004
1 D.VS
2 REC PRF
3 S.SENS
4 CAM (+)
5 CAM (+)
6 COM
7 COM
8 X CASSETE
9 MODE4
10 MODE3
11 MODE2
12 MODE1
13 C-UP/DOWN
14 LAMP Vcc
15 END LED
16 LOAD (+)
17 LOAD (+)
18 DEW
19 GND (UNSW)
A1
A2
A4
A3
S001 CASSETE UP/DOWN
TO MA-62 BOARD CN004
(See Page 128)
C008 0.1 F
CN005
1 LOAD (-)
2 LOAD (+)
3 LOAD (-)
LOAD (-) 1
LOAD (+) 2
LOAD (-) 3
M904 LOADING MOTOR
C009 0.1 F
CN006
1 CAM (-)
2 N.C
3 CAM (+)
CAM (-) 1
N.C 2
CAM (+) 3
M903 CAM MOTOR
CN007
1 CAP Vcc
2 CAP Vcc
3 C.VS
4 CAP.RVS
5 SW 5V
6 GND (MTR)
7 GND (MTR)
8 CAP FG2
9 CAP FG1
10 GND (SW)
11 LIMITER
12 MOTOR 12V
13 T.REEL
14 T.SENS
15 UNSW5V
16 S.REEL
17 D.PG (-)
18 D.PG (+)
19 D.FG
TO MA-62 BOARD CN007
(See Page 128)
CN008
1 DEW
2 GND (UNSW)
3 UNSW 5V
CHECK PIN

- **SIGNAL PATH**

	REC	REC/PB	PB
Drum speed servo		▷	
Drum phase servo		▷▷	
Drum servo (speed and phase)		▷▷▷	
Capstan speed servo		➢	
Capstan phase servo			
Capstan servo (speed and phase)			
Ref. signal			

MD-49 (MECHANISM DRIVE) PRINTED WIRING BOARD

— Ref. No. MD-49 BOARD: 6000 series —

MD-49	BOARD
D001	D-5
D002	C-2
D003	C-2
D004	D-1
D005	D-9
IC002	A-5
IC004	C-8
Q001	C-1
Q002	C-9

A-6754-228-A MD-49 BOARD, COMPLETE
****
(Ref. No 6,000 Series)

< DIODE >

D001	8-719-974-65	DIODE	GL451V
D004	8-719-109-93	DIODE	RD6.2ES-B2
D005	8-719-109-93	DIODE	RD6.2ES-B2
D006	8-719-109-93	DIODE	RD6.2ES-B2
D007	8-719-109-93	DIODE	RD6.2ES-B2

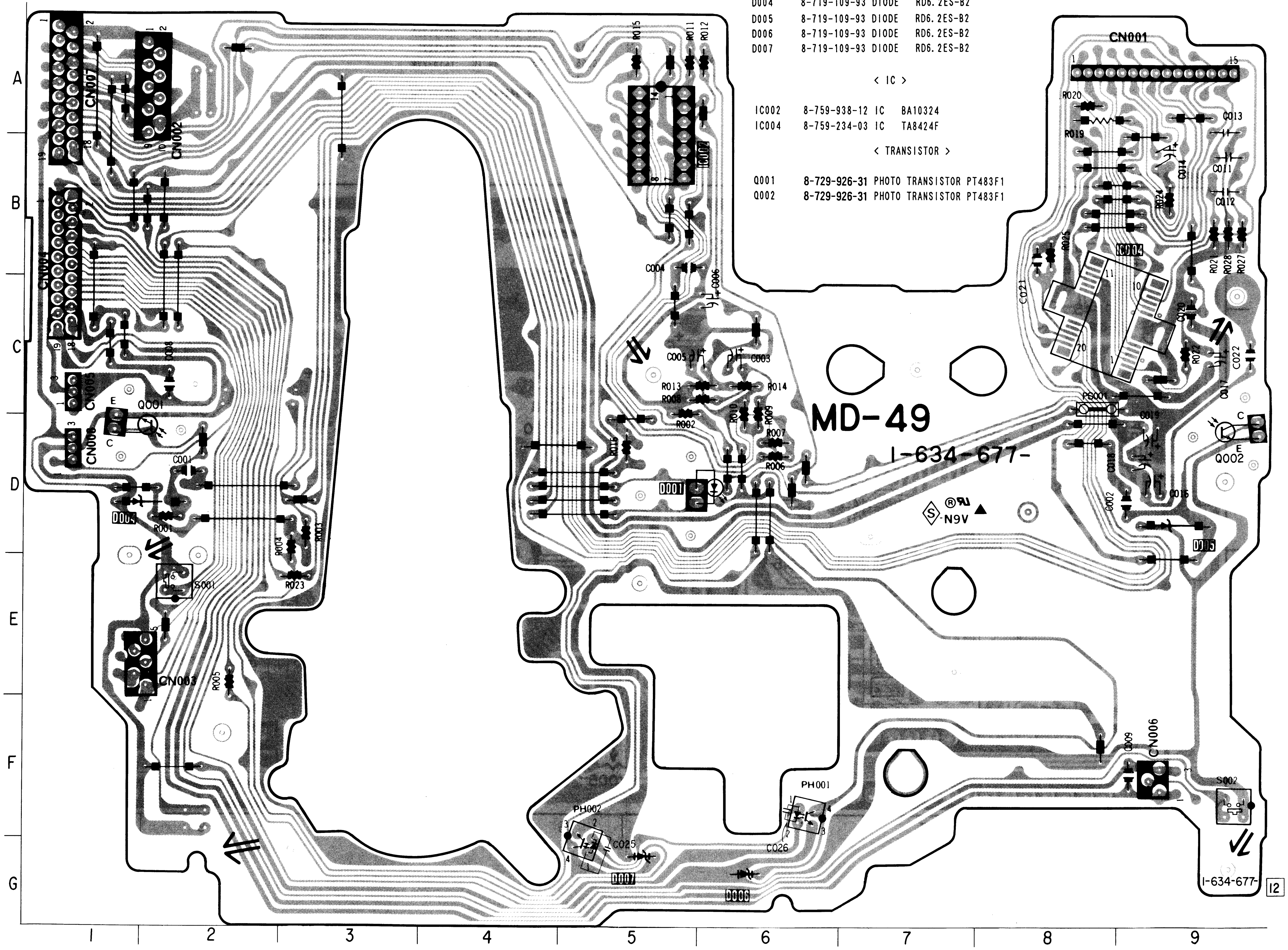
< IC >

IC002	8-759-938-12	IC	BA10324
IC004	8-759-234-03	IC	TA8424F

< TRANSISTOR >

Q001	8-729-926-31	PHOTO TRANSISTOR PT483F1
Q002	8-729-926-31	PHOTO TRANSISTOR PT483F1

MD-49 BOARD


A
B
C
D
E
F
G
1
2
3
4
5
6
7
8
9
CN007
CN002
CN004
CN005
CN008
CN003
CN001
CN006
IC002
IC004
Q001
Q002
D001
D004
D005
D006
D007
S001
S002
PH001
PH002
PS001
R001
R002
R004
R005
R006
R007
R008
R009
R010
R011
R012
R013
R014
R015
R016
R019
R020
R021
R022
R023
R024
R025
R027
R028
C001
C002
C003
C004
C005
C006
C008
C009
C011
C012
C013
C014
C015
C016
C017
C018
C019
C020
C021
C022
C025
C026
E
C
MD-49
1-634-677-
N9V
1-634-677-
12

HF-9 (AUDIO) PRINTED WIRING BOARD

— Ref. No. HF-9 BOARD: 7000 series —

* A-6713-377-A HF-9 BOARD, COMPLETE
****
(Ref. No 7.000 Series)

< DIODE >

D001	8-719-911-19	DIODE	1SS119
D002	8-719-911-19	DIODE	1SS119
D003	8-719-104-34	DIODE	1S2835

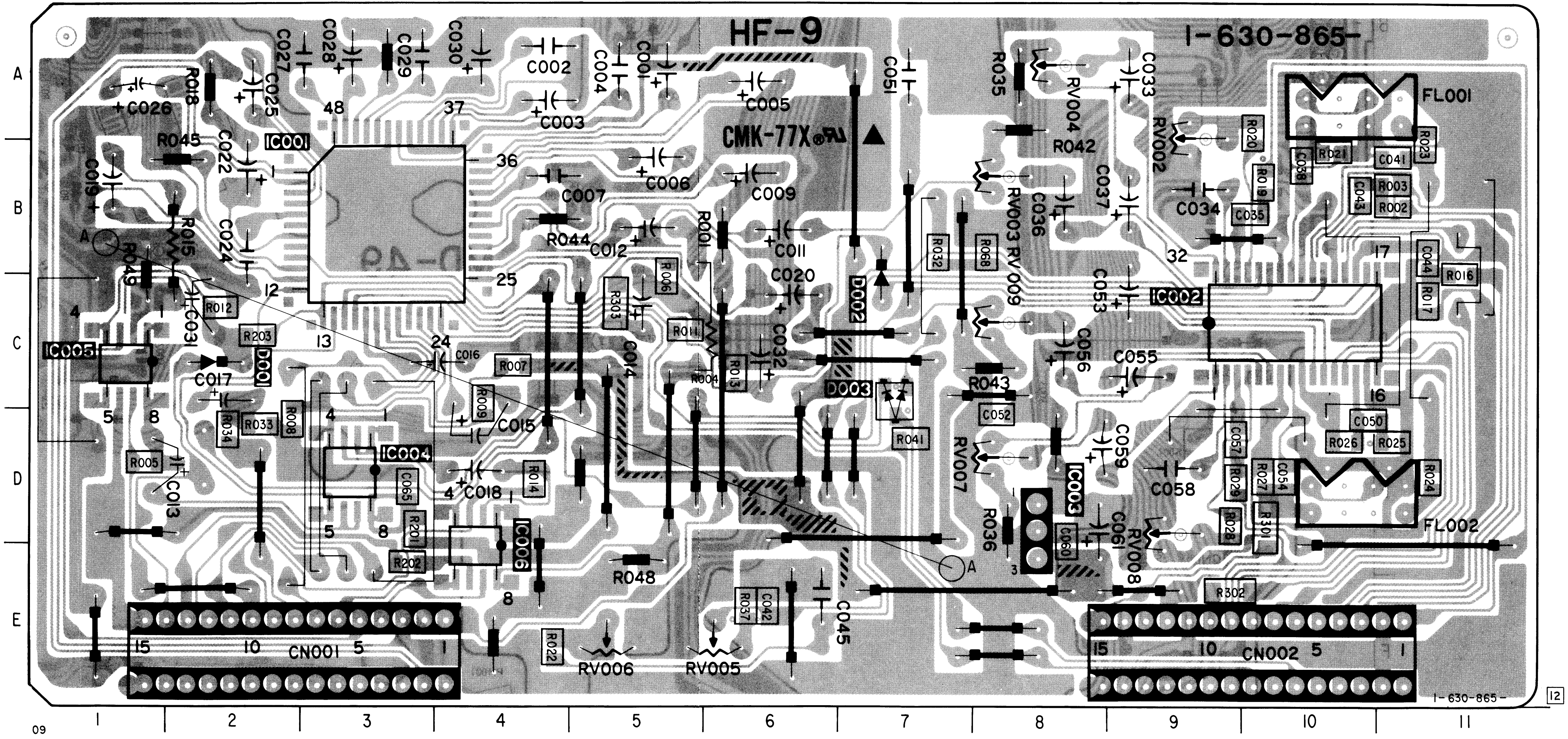
< IC >

IC001	8-759-420-18	IC	AN3972FC
IC002	8-759-420-15	IC	AN3932S
IC003	8-759-982-21	IC	RC78L05A
IC004	8-759-924-46	IC	BA4560F
IC005	8-759-946-44	IC	TK15120M
IC006	8-759-946-44	IC	TK15120M

HF-9 BOARD

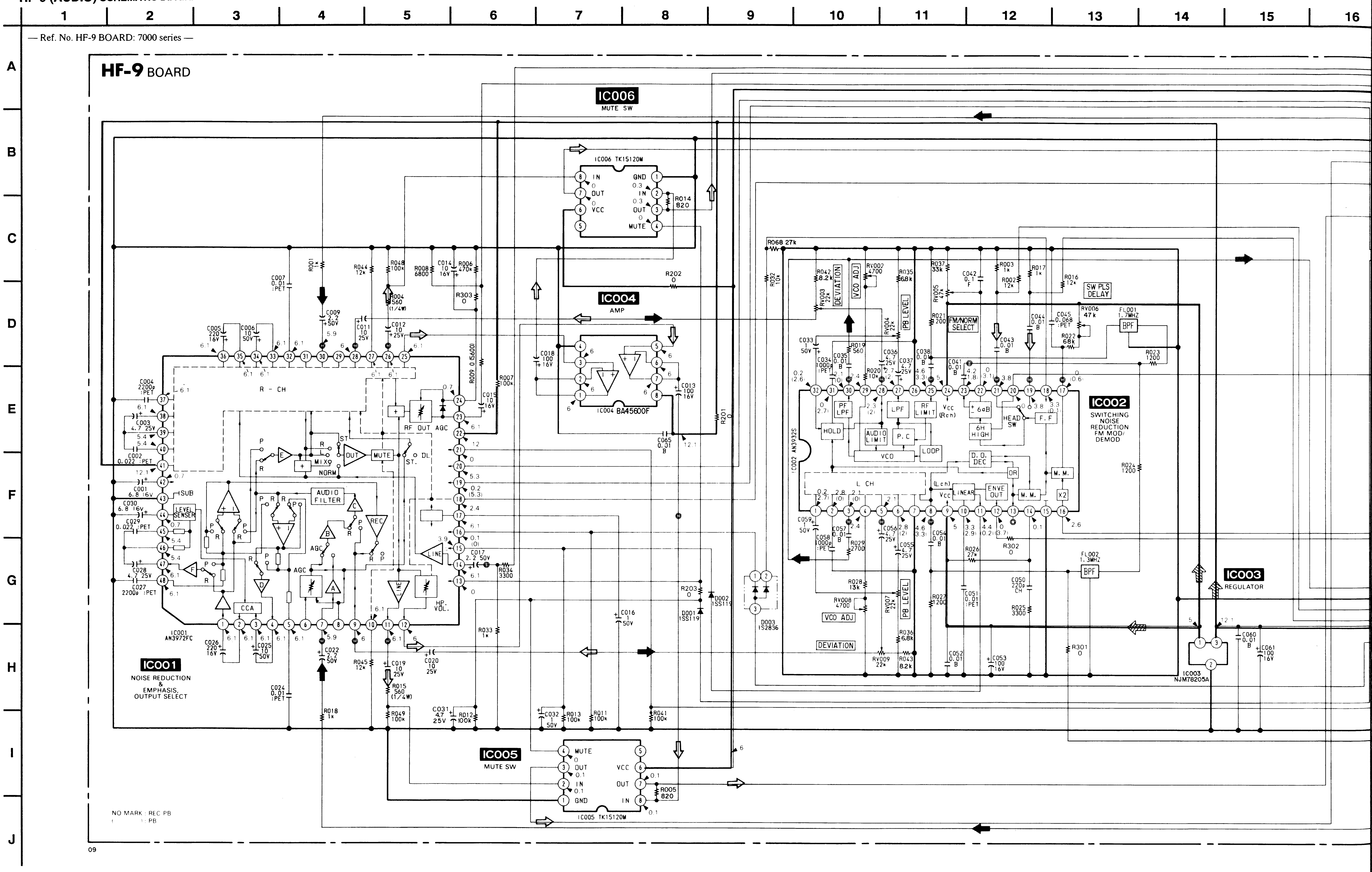
D001	C-2
D002	C-7
D003	C-7
IC001	B-3
IC002	C-10
IC003	D-8
IC004	D-3
IC005	C-1
IC006	D-4

HF-9 BOARD


HF-9
1-630-865-
CMK-77X
A
B
C
D
E
1
2
3
4
5
6
7
8
9
10
11
09
12
IC001
IC002
IC003
IC004
IC005
IC006
D001
D002
D003
CN001
CN002
FL001
FL002
RV002
RV003
RV004
RV005
RV006
RV007
RV008
RV009
C001
C002
C003
C004
C005
C006
C007
C009
C011
C012
C013
C014
C015
C016
C017
C018
C019
C020
C022
C024
C025
C026
C027
C028
C029
C030
C031
C032
C033
C034
C035
C036
C037
C038
C041
C042
C043
C044
C045
C050
C051
C052
C053
C054
C055
C056
C057
C058
C059
C060
C061
C065
R001
R002
R003
R004
R005
R006
R007
R008
R009
R011
R012
R013
R014
R015
R016
R017
R018
R019
R020
R021
R022
R023
R024
R025
R026
R027
R028
R029
R032
R033
R034
R035
R036
R037
R041
R042
R043
R044
R045
R048
R049
R068
R201
R202
R203
R301
R302
R303
48
37
36
25
24
13
12
1
32
17
16
15
10
5
4
8
3
1-630-865-

HF-9 (AUDIO) SCHEMATIC DIAGRAM

— Ref. No. HF-9 BOARD: 7000 series —


1
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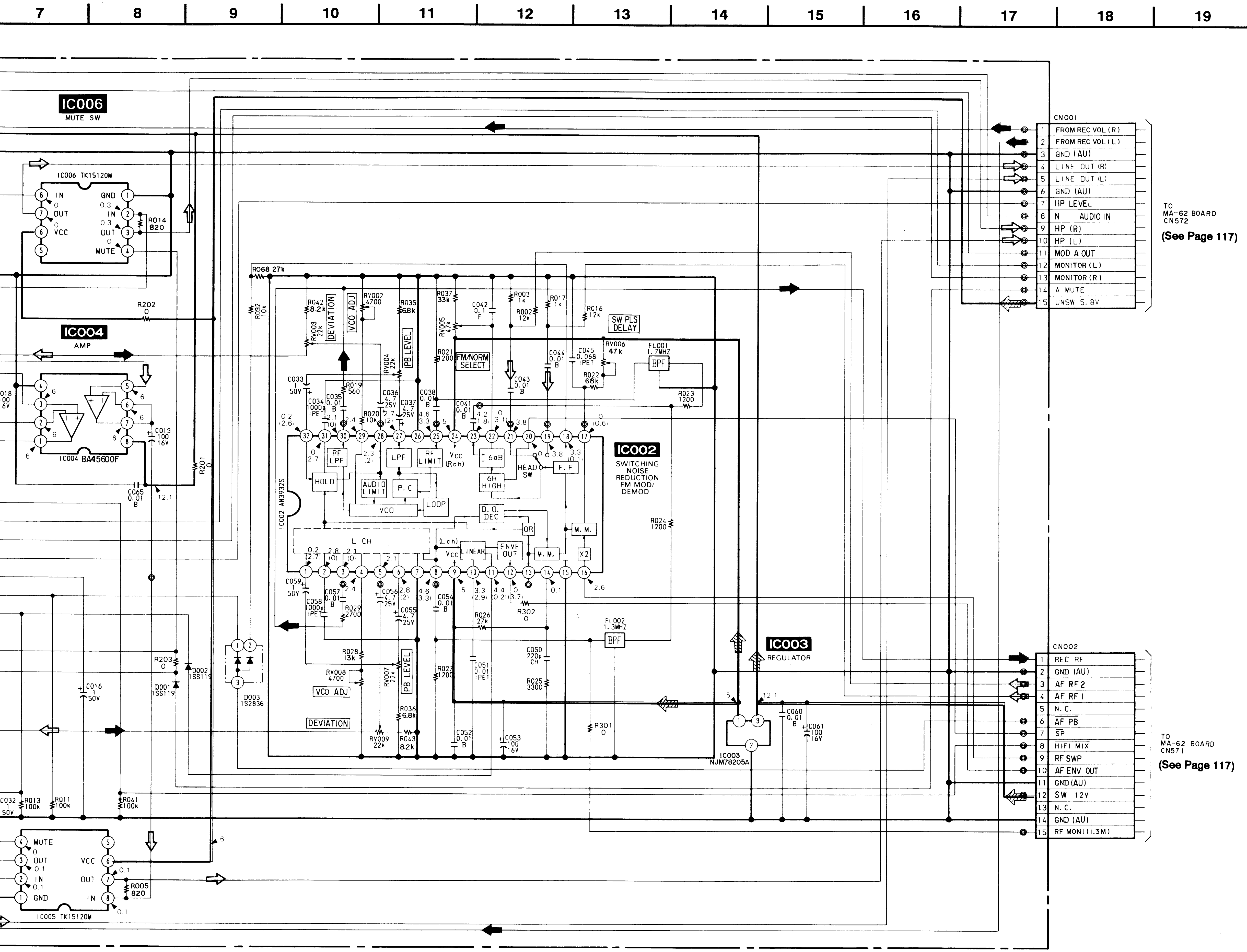
5
6
7
8
9
10
11
12
13
14
15
16
A
B
C
D
E
F
G
H
I
J
HF-9 BOARD
IC006
MUTE SW
IC006 TK15120M
IN
OUT
VCC
GND
MUTE
R014 820
IC004
AMP
IC004 BA4560OF
R202 0
R201 0
C065 0.01 B
C013 100 16V
C018 100 16V
IC001
NOISE REDUCTION & EMPHASIS, OUTPUT SELECT
IC001 AN3972FC
R - CH
CCA
AUDIO FILTER
MIX
NORM
MUTE
RF OUT
AGC
LEVEL SENSER
HP. VOL.
LINE
REC
DL
ST.
SUB
IC005
MUTE SW
IC005 TK15120M
R005 820
D001 1SS119
D002 1SS119
D003 1S2836
R203 0
IC002
SWITCHING NOISE REDUCTION FM MOD/ DEMOD
IC002 AN3932S
L CH
HOLD
PF LPF
LPF
RF LIMIT
AUDIO LIMIT
P. C
VCO
LOOP
D. O. DEC
OR
LINEAR
ENVE OUT
M. M.
X2
F. F
6H HIGH
HEAD SW
+6dB
DEVIATION
VCO ADJ
PB LEVEL
FM/NORM SELECT
SW PLS DELAY
FL001 1.7MHZ
BPF
FL002 1.3MHZ
BPF
IC003
REGULATOR
IC003 NJM78205A
R068 27k
R024 1200
R023 1200
R301 0
C060 0.01 B
C061 100 16V
NO MARK : REC PB
( ) : PB
09


7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22
IC006
MUTE SW
IC006 TK15120M
IN
OUT
VCC
GND
IN
OUT
MUTE
R014 820
IC004
AMP
IC004 BA4560OF
C013 100 16V
C065 0.01 B
R202 0
R201 0
IC002
SWITCHING NOISE REDUCTION FM MOD/ DEMOD
IC002 AN3932S
R068 27k
R032 10k
R042 8.2k
RV003 22k
DEVIATION
VCO ADJ
RV002 4700
RV004 22k
PB LEVEL
R035 68k
R037 33k
RV005 47k
R021 1200
FM/NORM SELECT
C042 0.1 F
R003 1k
R002 12k
R017 1k
R016 12k
SW PLS DELAY
C044 0.01 B
C045 0.068 PET
RV006 47k
R022 68k
FL001 1.7MHZ
BPF
R023 1200
C043 0.01 B
HOLD
PF LPF
LPF
RF LIMIT
AUDIO LIMIT
P. C
VCO
LOOP
Vcc (Rch)
6dB
6H HIGH
HEAD SW
F.F
D.O. DEC
OR
M.M.
X2
L CH
(Lch)
LINEAR
ENVE OUT
R024 1200
C059 1 50V
C058 1000p PET
C057 0.01 B
R029 2700
C056 4.7 25V
C055 4.7 25V
C054 0.01 B
R026 27k
R302 0
FL002 1.3MHZ
BPF
R028 13k
RV008 4700
VCO ADJ
RV007 22k
PB LEVEL
R027 1200
C051 0.01 PET
C050 220p CH
R025 3300
R036 6.8k
DEVIATION
RV009 22k
R043 8.2k
C052 0.01 B
C053 100 16V
R301 0
IC003
REGULATOR
IC003 NJM78205A
C060 0.01 B
C061 100 16V
R203 0
D002 1SS119
D001 1SS119
D003 1S2836
C016 1 50V
C032 1 50V
R013 100k
R011 100k
R041 100k
MUTE
OUT
IN
GND
VCC
OUT
IN
R005 820
IC005 TK15120M
CN001
1 FROM REC VOL (R)
2 FROM REC VOL (L)
3 GND (AU)
4 LINE OUT (R)
5 LINE OUT (L)
6 GND (AU)
7 HP LEVEL
8 N AUDIO IN
9 HP (R)
10 HP (L)
11 MOD A OUT
12 MONITOR (L)
13 MONITOR (R)
14 A MUTE
15 UNSW 5.8V
TO MA-62 BOARD CN572
(See Page 117)
CN002
1 REC RF
2 GND (AU)
3 AF RF 2
4 AF RF 1
5 N.C.
6 AF PB
7 SP
8 HIFI MIX
9 RF SWP
10 AF ENV OUT
11 GND (AU)
12 SW 12V
13 N.C.
14 GND (AU)
15 RF MONI (1.3M)
TO MA-62 BOARD CN571
(See Page 117)

- **SIGNAL PATH**

	VIDEO SIGNAL			AUDIO SIGNAL
	CHROMA	Y	Y/CHROMA/DATA	
REC				➡
PB				⇨

* A-6756-101-A IO-40 BOARD, COMPLETE
****
(Ref. No 8, 000 Series)

< DIODE >

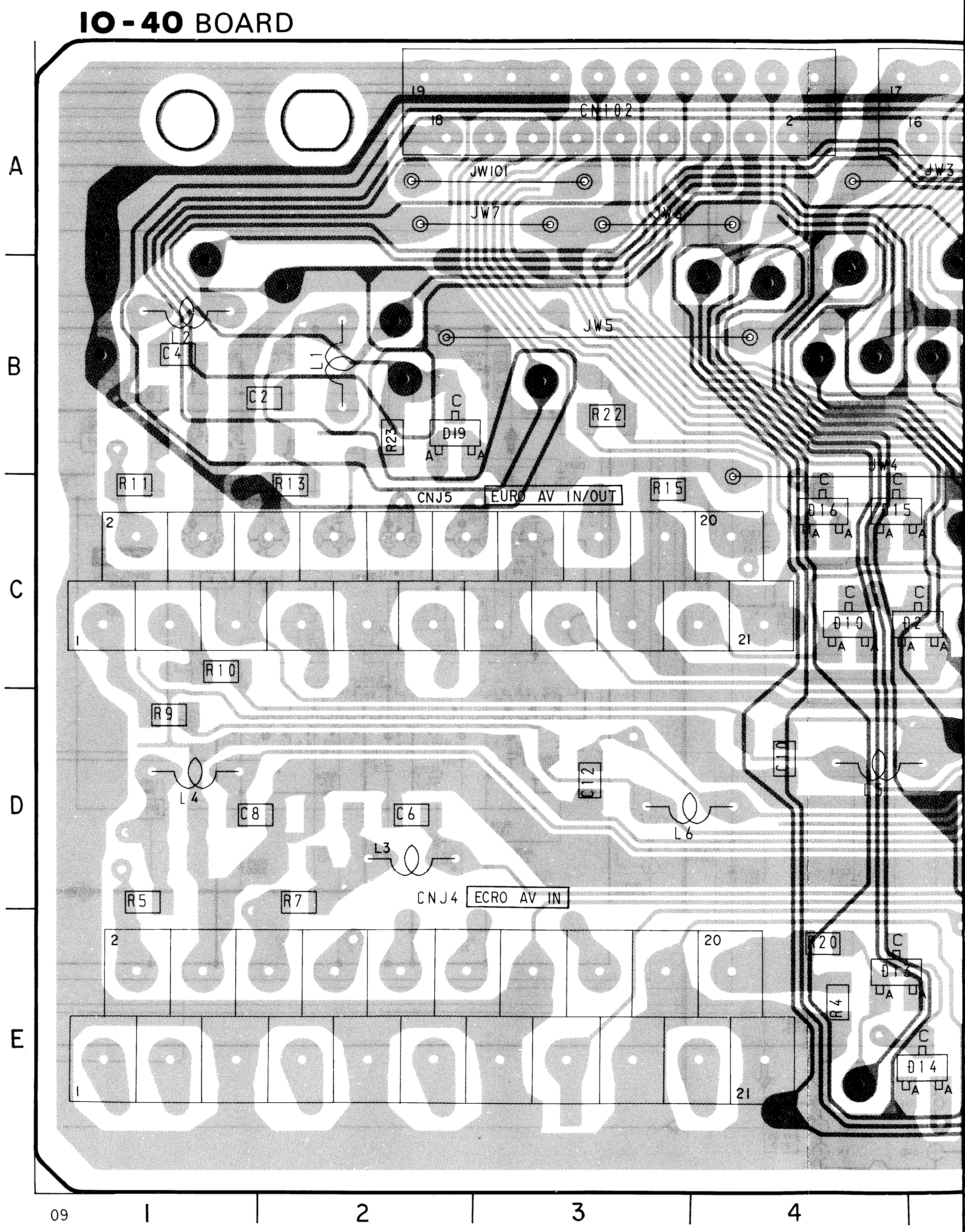
D001	8-719-106-08	DIODE	RD6. 2M-B2
D002	8-719-106-08	DIODE	RD6. 2M-B2
D006	8-719-106-08	DIODE	RD6. 2M-B2
D007	8-719-106-08	DIODE	RD6. 2M-B2
D008	8-719-106-08	DIODE	RD6. 2M-B2
D009	8-719-106-08	DIODE	RD6. 2M-B2
D010	8-719-106-08	DIODE	RD6. 2M-B2
D013	8-719-106-08	DIODE	RD6. 2M-B2
D014	8-719-106-08	DIODE	RD6. 2M-B2
D015	8-719-106-08	DIODE	RD6. 2M-B2
D016	8-719-106-08	DIODE	RD6. 2M-B2
D019	8-719-106-88	DIODE	RD15M-B1

< TRANSISTOR >

Q001	8-729-901-06	TRANSISTOR	DTA144EK
Q002	8-729-901-01	TRANSISTOR	DTC144EK

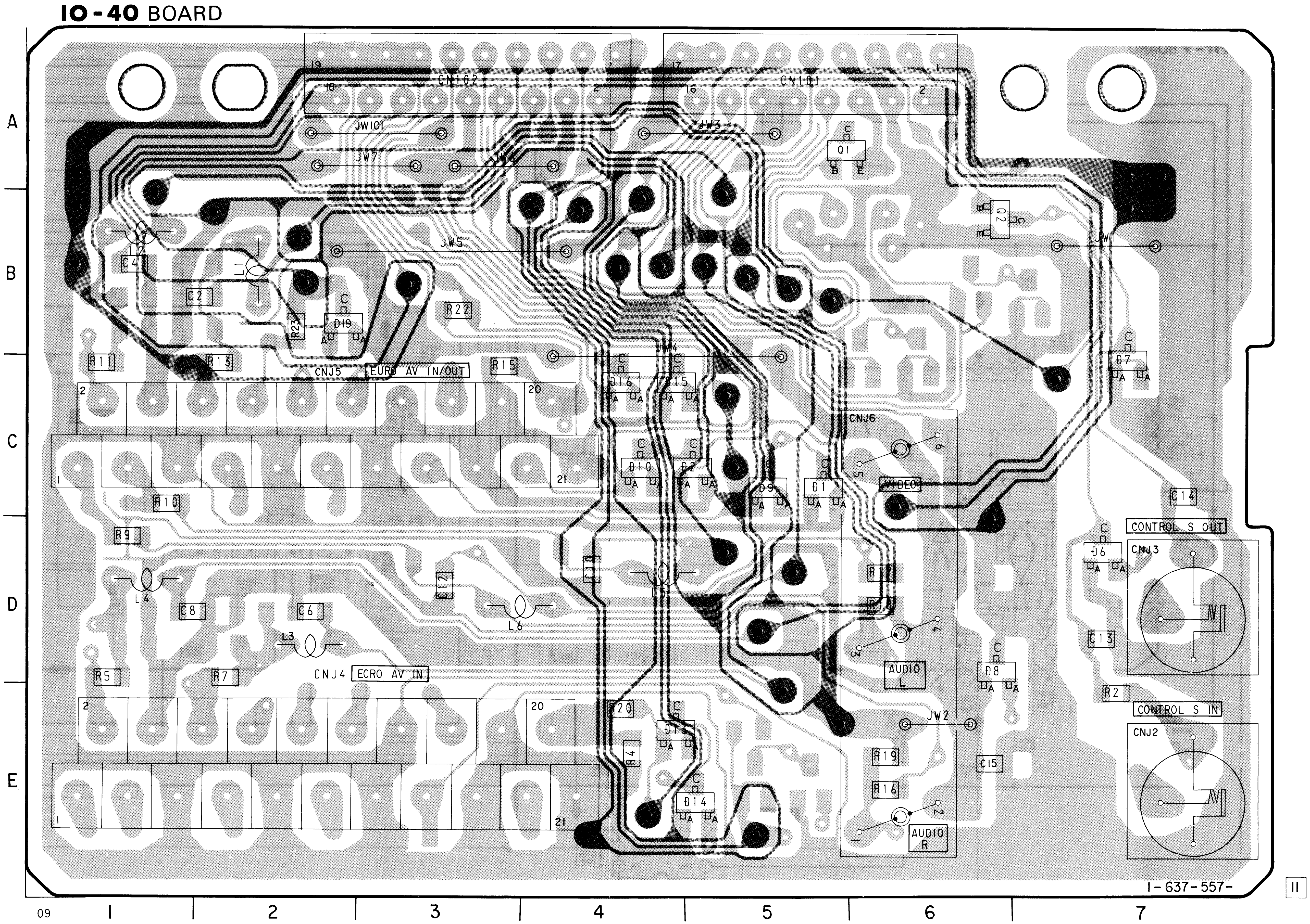
IO-40 (TERMINAL) PRINTED WIRING BOARD

— Ref. No. IO-40 BOARD: 8000 series —


IO-40 BOARD
A
B
C
D
E
19
18
CN102
2
17
16
JW101
JW7
JW3
JW5
JW4
L2
C4
L1
C2
R23
C
D19
A
R22
R11
R13
CNJ5
EURO AV IN/OUT
R15
D16
D10
2
20
1
21
R10
R9
L4
C8
C6
C12
L6
C10
L5
L3
R5
R7
CNJ4
ECRO AV IN
R20
R4
D14
09
1
2
3
4

IO-40 (TERMINAL) PRINTED WIRING BOARD

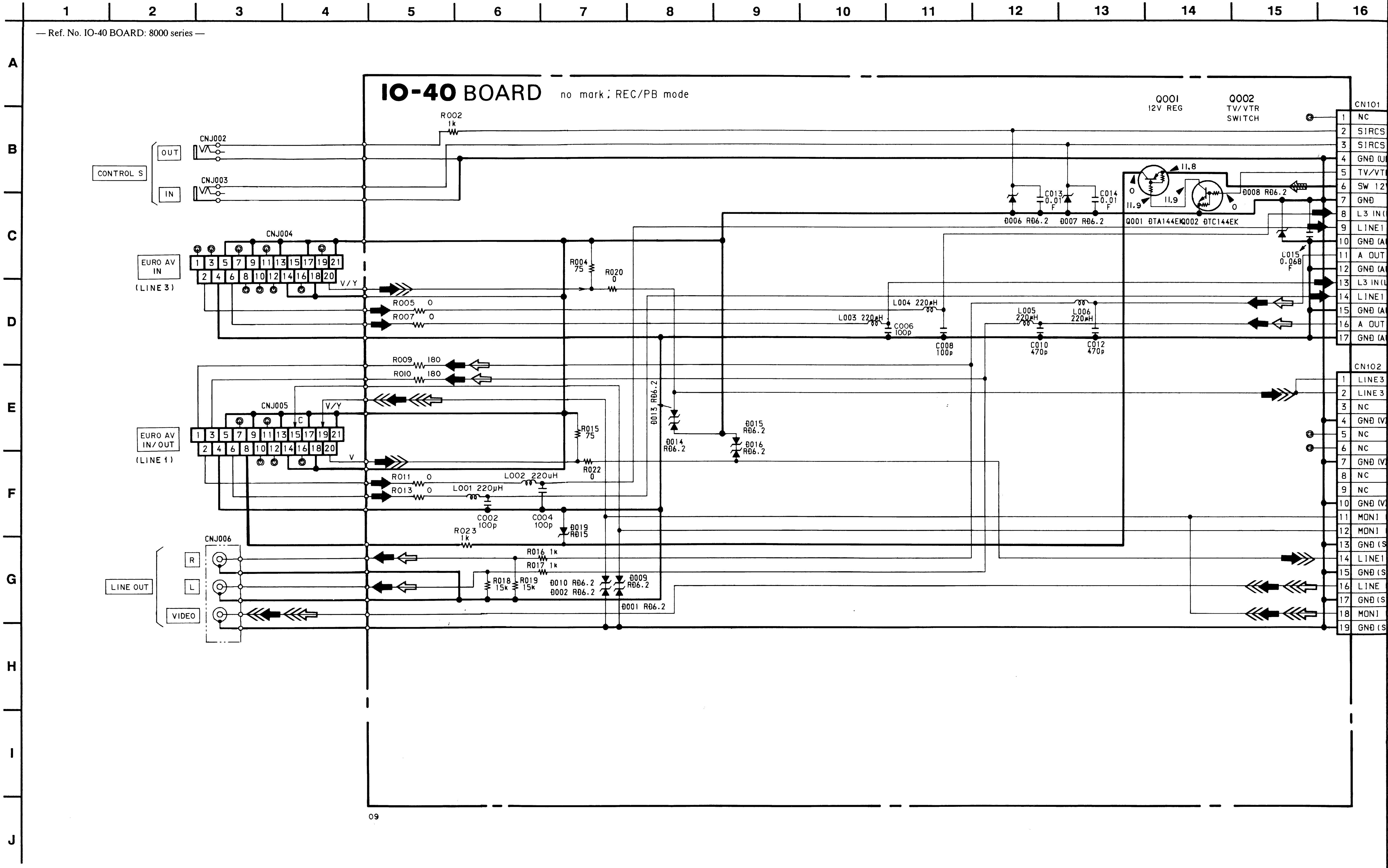
— Ref. No. IO-40 BOARD: 8000 series —


IO-40 BOARD
A
B
C
D
E
CN102
CN101
JW101
JW7
JW6
JW3
JW5
JW1
JW4
JW2
Q1
Q2
C4
C2
L1
R23
D19
R22
R11
R13
CNJ5
EURO AV IN/OUT
R15
D16
D15
D7
CNJ6
D10
D2
D9
D1
VIDEO
C14
CONTROL S OUT
CNJ3
D6
R10
R9
C10
C12
L4
L5
L6
C8
C6
L3
R17
R18
C13
AUDIO L
D8
R5
R7
CNJ4
ECRO AV IN
R2
CONTROL S IN
CNJ2
R20
D12
R4
D14
R19
R16
C15
AUDIO R
1-637-557-
11
09
1
2
3
4
5
6
7

TERMINAL **TERMINAL**

IO-40 (TERMINAL) SCHEMATIC DIAGRAM

— Ref. No. IO-40 BOARD: 8000 series —


1
2
3
4
5
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7
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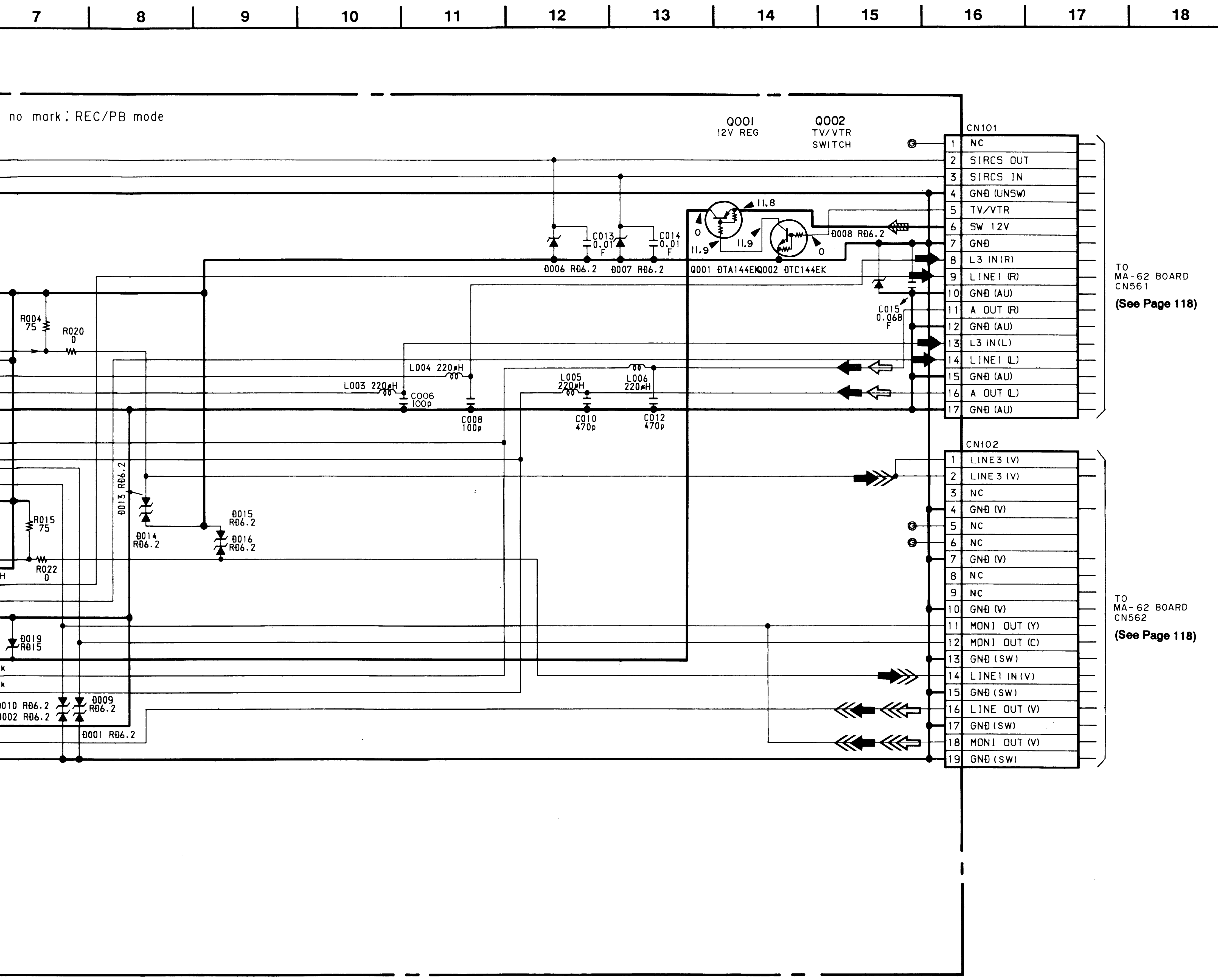
9
10
11
12
13
14
15
16
A
B
C
D
E
F
G
H
I
J
IO-40 BOARD
no mark : REC/PB mode
CONTROL S
OUT
IN
CNJ002
CNJ003
R002 1k
Q001 12V REG
Q002 TV/VTR SWITCH
CN101
NC
SIRCS
SIRCS
GND
TV/VT
SW 12
GND
L3 IN
LINE1
GND
A OUT
GND
L3 IN
LINE1
GND
A OUT
GND
EURO AV IN
(LINE 3)
CNJ004
V/Y
R004 75
R020 0
R005 0
R007 0
D006 RD6.2
D007 RD6.2
C013 0.01 F
C014 0.01 F
11.8
11.9
0
D008 RD6.2
Q001 DTA144EK
Q002 DTC144EK
L015 0.068 F
L003 220µH
L004 220µH
C006 100p
C008 100p
L005 220µH
L006 220µH
C010 470p
C012 470p
R009 180
R010 180
CN102
LINE3
LINE3
NC
GND (V
NC
NC
GND (V
NC
NC
GND (V
MONI
MONI
GND (S
LINE1
GND (S
LINE
GND (S
MONI
GND (S
EURO AV IN/OUT
(LINE 1)
CNJ005
V/Y
C
V
D013 RD6.2
D014 RD6.2
D015 RD6.2
D016 RD6.2
R015 75
R022 0
R011 0
R013 0
L002 220µH
L001 220µH
C002 100p
C004 100p
D019 RD15
R023 1k
LINE OUT
CNJ006
R
L
VIDEO
R016 1k
R017 1k
R018 15k
R019 15k
D010 RD6.2
D002 RD6.2
D009 RD6.2
D001 RD6.2
09

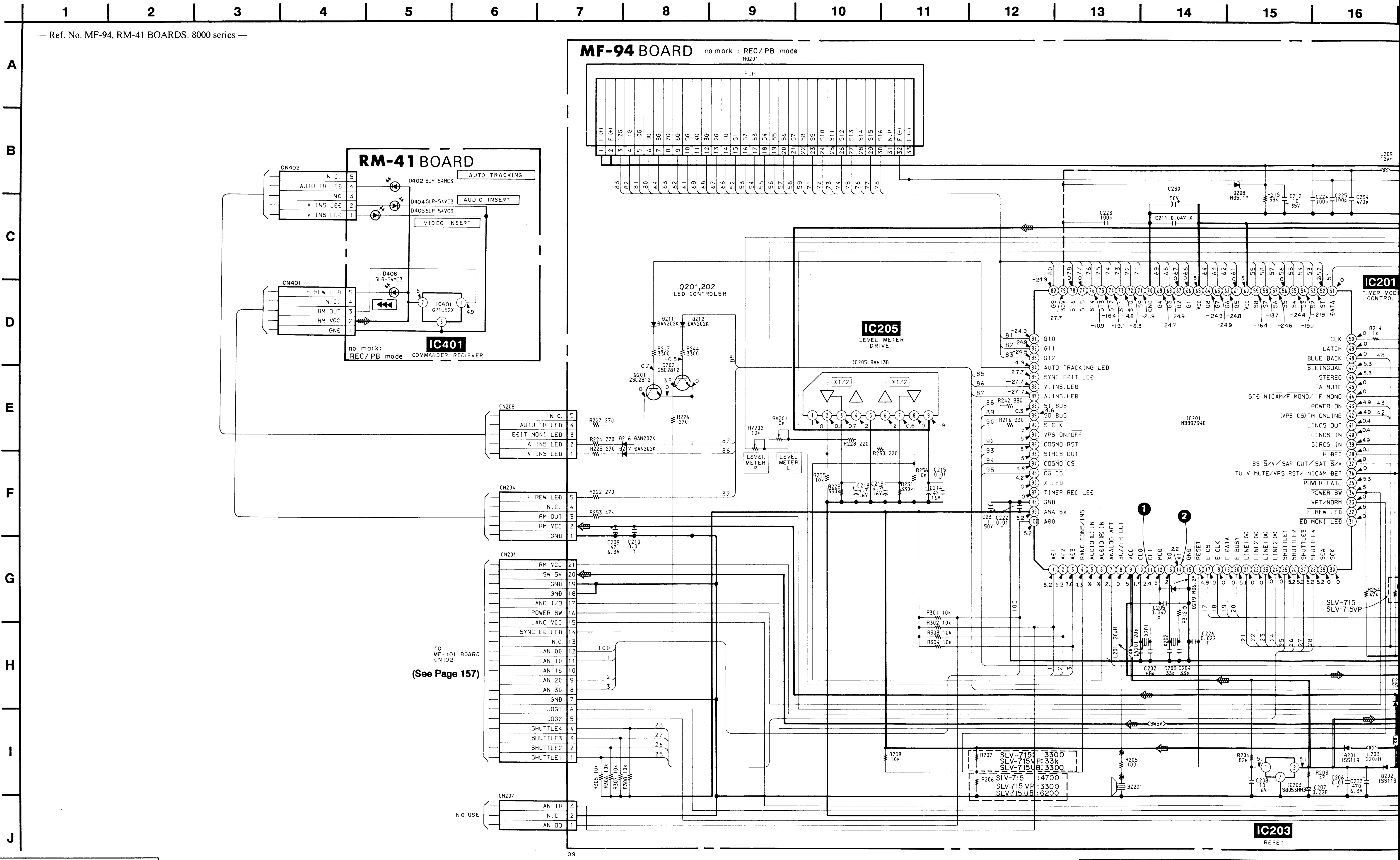

7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
no mark ; REC/PB mode
Q001
12V REG
Q002
TV/VTR
SWITCH
CN101
1 NC
2 SIRCS OUT
3 SIRCS IN
4 GND (UNSW)
5 TV/VTR
6 SW 12V
7 GND
8 L3 IN(R)
9 LINE1 (R)
10 GND (AU)
11 A OUT (R)
12 GND (AU)
13 L3 IN(L)
14 LINE1 (L)
15 GND (AU)
16 A OUT (L)
17 GND (AU)
TO
MA-62 BOARD
CN561
(See Page 118)
CN102
1 LINE3 (V)
2 LINE3 (V)
3 NC
4 GND (V)
5 NC
6 NC
7 GND (V)
8 NC
9 NC
10 GND (V)
11 MONI OUT (Y)
12 MONI OUT (C)
13 GND (SW)
14 LINE1 IN (V)
15 GND (SW)
16 LINE OUT (V)
17 GND (SW)
18 MONI OUT (V)
19 GND (SW)
TO
MA-62 BOARD
CN562
(See Page 118)
11.8
11.9
11.9
0
0
C013 0.01 F
C014 0.01 F
D006 RD6.2
D007 RD6.2
D008 RD6.2
Q001 DTA144EK
Q002 DTC144EK
L015 0.068 F
R004 75
R020 0
L003 220μH
L004 220μH
C006 100p
C008 100p
L005 220μH
L006 220μH
C010 470p
C012 470p
D013 RD6.2
D014 RD6.2
D015 RD6.2
D016 RD6.2
R015 75
R022 0
D019 RD15
D010 RD6.2
D002 RD6.2
D009 RD6.2
D001 RD6.2

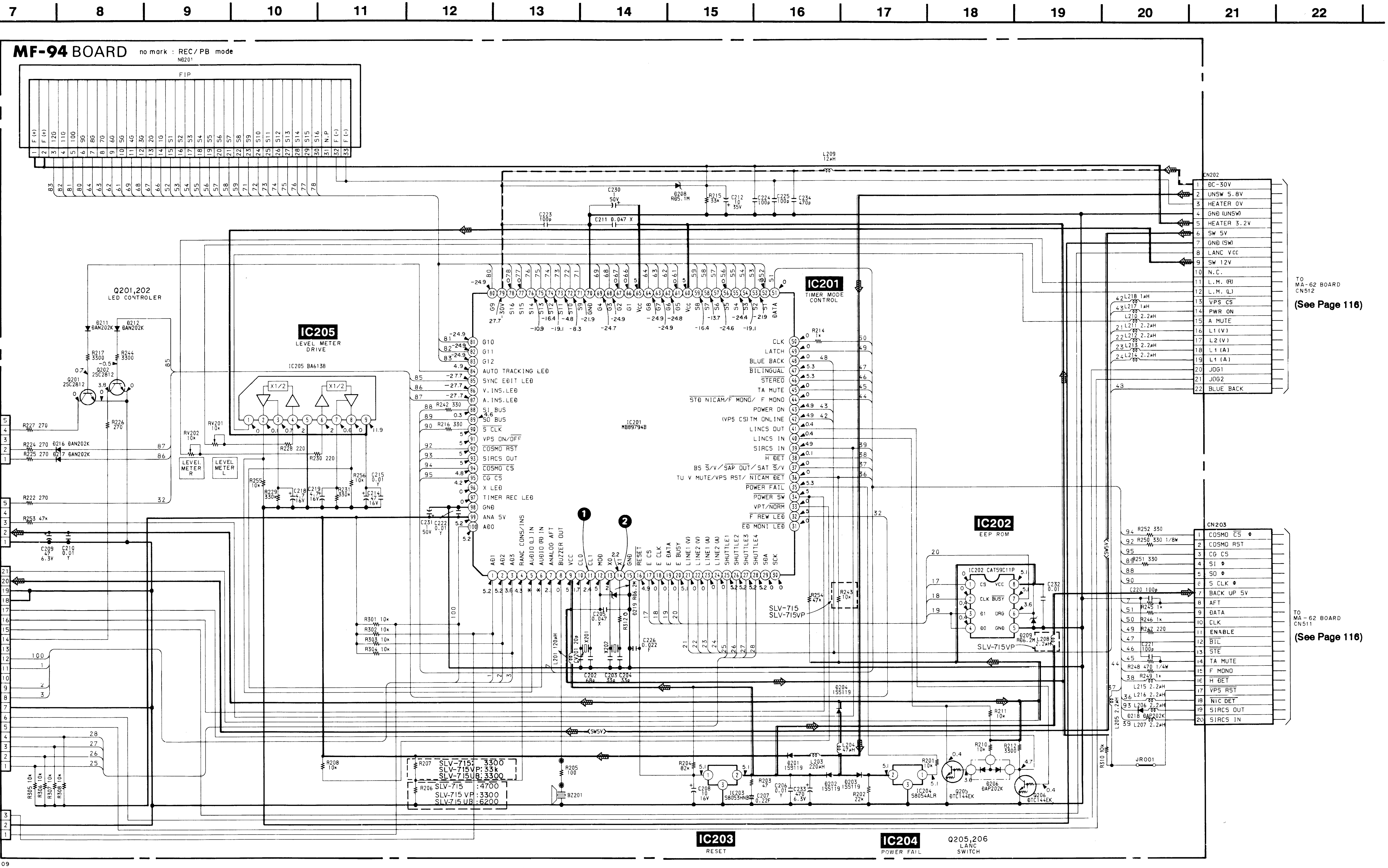
• **SIGNAL PATH**

	VIDEO SIGNAL			AUDIO SIGNAL
	CHROMA	Y	Y/CHROMA/DATA	
REC			➡≫	➡
PB			⇨≫	⇨

MF-94 (MODE CONTROL), RM-41 (COMMANDER RECIEVER) SCHEMATIC DIAGRAMS

— Ref. No. MF-94, RM-41 BOARDS: 8000 series —


MF-94 BOARD
no mark : REC/PB mode
ND201
FIP
RM-41 BOARD
AUTO TRACKING
AUDIO INSERT
VIDEO INSERT
D402 SLR-54MC3
D404 SLR-54VC3
D405 SLR-54VC3
D406 SLR-54MC3
IC401 GP1U52X
IC401
COMMANDER RECIEVER
no mark: REC/PB mode
CN402
N.C.
AUTO TR LED
NC
A INS LED
V INS LED
CN401
F REW LED
N.C.
RM OUT
RM VCC
GND
Q201,202 LED CONTROLER
Q201 2SC2812
Q202 2SC2812
IC205
LEVEL METER DRIVE
IC205 BA6138
LEVEL METER R
LEVEL METER L
CN208
EDIT MONI LED
CN204
CN201
RM VCC
SW 5V
LANC I/O
POWER SW
LANC VCC
SYNC ED LED
AN 00
AN 10
AN 16
AN 20
AN 30
JOG1
JOG2
SHUTTLE4
SHUTTLE3
SHUTTLE2
SHUTTLE1
TO MF-101 BOARD CN102
(See Page 157)
CN207
NO USE
IC201
TIMER MODE CONTROL
IC201 MB89794B
CLK
LATCH
BLUE BACK
BILINGUAL
STEREO
TA MUTE
STD NICAM/F MONO/ F MONO
POWER ON
(VPS CS)TM ONLINE
LINCS OUT
LINCS IN
SIRCS IN
H DET
BS S/V/SAP OUT/SAT S/V
TU V MUTE/VPS RST/ NICAM DET
POWER FAIL
POWER SW
VPT/NORM
F REW LED
ED MONI LED
G10
G11
G12
AUTO TRACKING LED
SYNC EDIT LED
V.INS.LED
A.INS.LED
SI BUS
SO BUS
S CLK
VPS ON/OFF
COSMO RST
SIRCS OUT
COSMO CS
CG CS
X LED
TIMER REC LED
GND
ANA 5V
ADO
AD1
AD2
AD3
RANC CONS/INS
AUDIO (L) IN
AUDIO (R) IN
ANALOG AFT
BUZZER OUT
VCC
CL0
CL1
MOD
X0
X1
RESET
E CS
E CLK
E DATA
E BUSY
LINE1 (V)
LINE2 (V)
LINE1 (A)
LINE2 (A)
SHUTTLE1
SHUTTLE2
SHUTTLE3
SHUTTLE4
SDA
SCK
DATA
SLV-715
SLV-715VP
R207 SLV-715: 3300
SLV-715VP: 33k
SLV-715UB: 3300
R206 SLV-715 : 4700
SLV-715 VP : 3300
SLV-715 UB : 6200
BZ201
IC203 S8053HNB
IC203
RESET
SW5V
①
②


7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
MF-94 BOARD no mark : REC/PB mode
ND201
FIP
IC201
TIMER MODE CONTROL
IC201 MB89794B
IC202
EEP ROM
IC202 CAT59C11P
IC203
RESET
IC204
POWER FAIL
IC205
LEVEL METER DRIVE
IC205 BA6138
Q201,202
LED CONTROLER
Q205,206
LANC SWITCH
LEVEL METER R
LEVEL METER L
CN202
1 DC-30V
2 UNSW 5.8V
3 HEATER 0V
4 GND (UNSW)
5 HEATER 3.2V
6 SW 5V
7 GND (SW)
8 LANC VCC
9 SW 12V
10 N.C.
11 L.M. (R)
12 L.M. (L)
13 VPS CS
14 PWR ON
15 A MUTE
16 L1 (V)
17 L2 (V)
18 L1 (A)
19 L1 (A)
20 JOG1
21 JOG2
22 BLUE BACK
TO MA-62 BOARD CN512
(See Page 116)
CN203
1 COSMO CS
2 COSMO RST
3 CG CS
4 SI
5 SO
6 S CLK
7 BACK UP 5V
8 AFT
9 DATA
10 CLK
11 ENABLE
12 BIL
13 STE
14 TA MUTE
15 F MONO
16 H DET
17 VPS RST
18 NIC DET
19 SIRCS OUT
20 SIRCS IN
TO MA-62 BOARD CN511
(See Page 116)
SLV-715
SLV-715VP
SLV-715: 3300
SLV-715VP: 33k
SLV-715UB: 3300
SLV-715 : 4700
SLV-715 VP : 3300
SLV-715 UB : 6200
BZ201
①
②

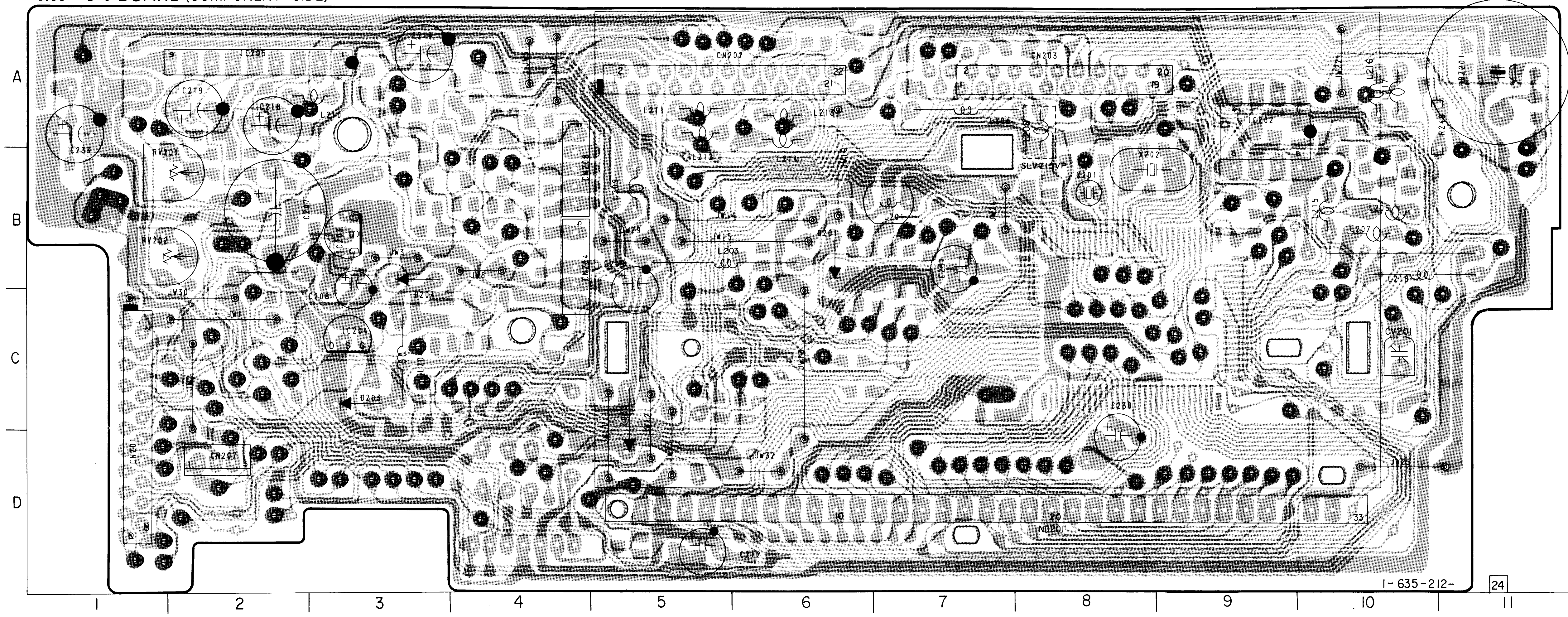
MODE CONTROL MODE CONTROL

MF-94 (MODE CONTROL), RM-41 (COMMANDER RECIEVER) PRINTED WIRING BOARDS

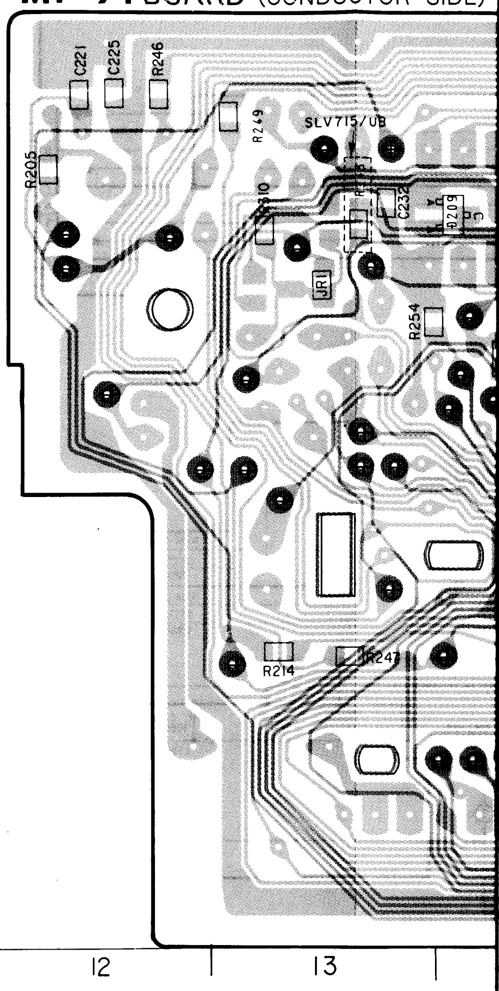
— Ref. No. MF-94, RM-41 BOARDS: 8000 series —

- **For printed wiring boards.**
- ⊗ : Through hole.

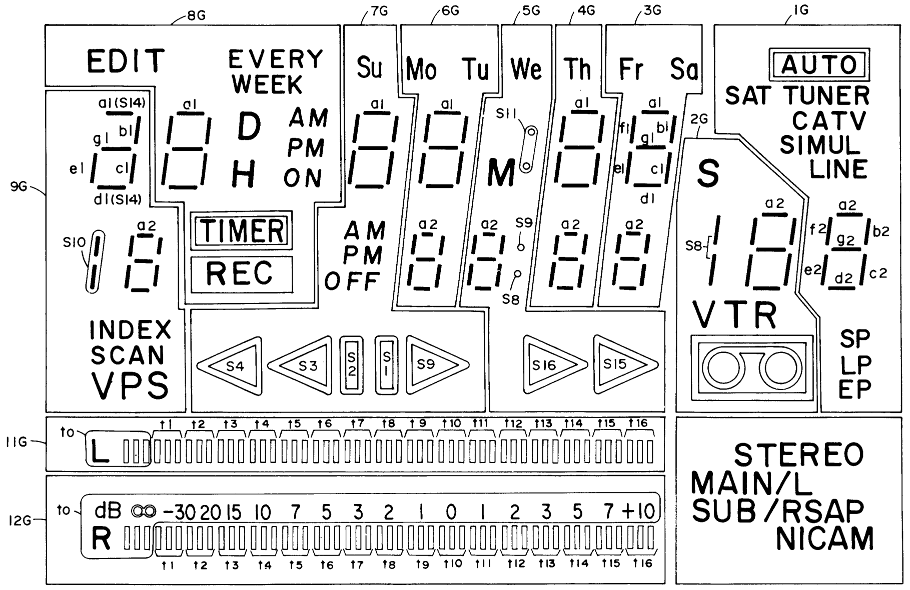
MF-94 BOARD (COMPONENT SIDE)


A
B
C
D
1
2
3
4
5
6
7
8
9
10
11
IC205
C219
C218
C233
C214
RV201
RV202
C207
IC203
JW30
JW1
C208
D204
IC204
D S G
D203
CN201
CN207
CN202
CN203
CN208
CN204
L211
L212
L213
L214
L209
JW29
JW15
L203
D201
L204
C201
SLV715VP
X201
X202
IC202
L216
L217
R243
D202
C209
C230
JW32
ND201
C212
L215
L205
L207
L218
CV201
JW28
1-635-212-
24

MF-94 BOARD (CONDUCTOR SIDE)


C221
C225
R246
R205
R249
SLV715/UB
R210
C232
D209
JR1
R254
R214
R247
12
13

09

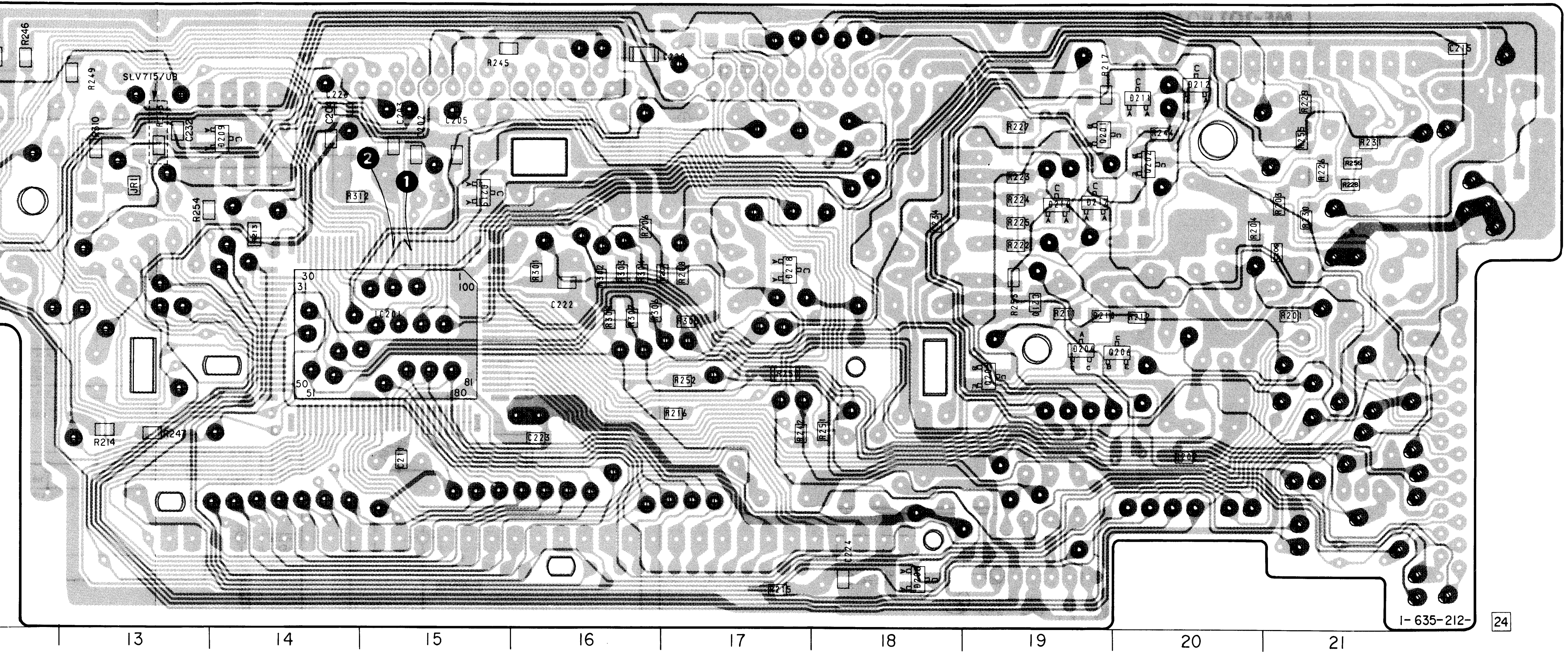

8G
7G
6G
5G
4G
3G
1G
9G
11G
12G
EDIT
EVERY WEEK
Su
Mo
Tu
We
Th
Fr
Sa
AUTO
SAT TUNER
CATV
SIMUL
LINE
a1(S14)
b1
g1
e1
c1
d1(S14)
D
H
AM
PM
ON
TIMER
REC
AM
PM
OFF
S11
M
S9
S8
2G
S
S10
a2
INDEX
SCAN
VPS
S4
S3
S2
S1
S9
S16
S15
VTR
SP
LP
EP
f2
g2
b2
e2
d2
c2
to
t1 t2 t3 t4 t5 t6 t7 t8 t9 t10 t11 t12 t13 t14 t15 t16
L
R
dB ∞ -30 20 15 10 7 5 3 2 1 0 1 2 3 5 7 +10
STEREO
MAIN/L
SUB/RSAP
NICAM

MF-94 BOARD

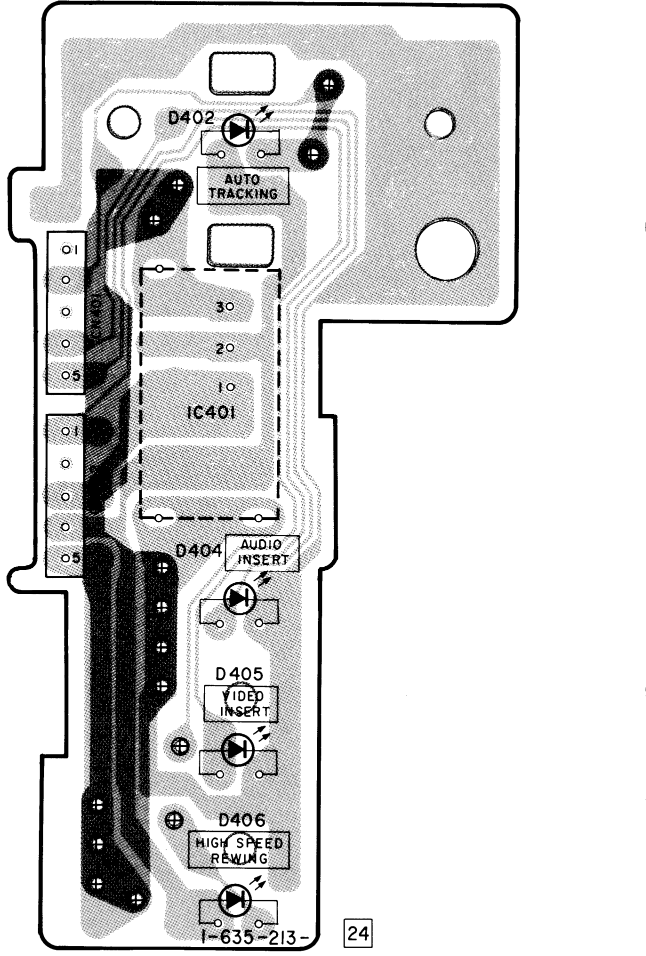
D201	B-6
D202	D-5
D203	C-3
D204	B-3
D206	C-19
D208	D-18
D209	A-14
D211	A-20
D212	A-20
D216	B-19
D217	B-19
D218	B-17
D219	B-15
IC201	C-15
IC202	A-9
IC203	B-3
IC204	C-3
IC205	A-2
Q201	A-19
Q202	B-20
Q205	C-19
Q206	C-10

	12G	11G	10G	9G	8G	7G	6G	5G	4G	3G	2G	1G
S1	t1	t1		d2	**H**	▯	d2	d2	d2	d2	d2	d2
S2	t2	t2		e2	**D**	▯	e2	e2	e2	e2	e2	e2
S3	t3	t3		c2	**AM**	◁	c2	c2	c2	c2	c2	c2
S4	t4	t4		g2	**PM**	◁	g2	g2	g2	g2	g2	g2
S5	t5	t5		f2	**ON**	**OFF**	f2	f2	f2	f2	f2	f2
S6	t6	t6		b2	**REC**	**PM**	b2	b2	b2	b2	b2	b2
S7	t7	t7		a2	**TIMER**	**AM**	a2	a2	a2	a2		a2
S8	t8	t8		**SCAN**	**EVERY WEEK**	**Su**	**Tu**	.	**Th**	**Fr**	/	**SP**
S9	t9	t9	**STEREO**	**VPS**	**EDIT**	▷	**Mo**	.		**Sa**	**VTR**	**LP**
S10	t10	t10		/	d1	d1	d1	**M**	d1	d1	**S**	**LINE**
S11	t11	t11	**SUB/R**	e1	e1	e1	e1	:	e1	e1		**SIMUL**
S12	t12	t12	**NICAM**	c1	c1	c1	c1		c1	c1		**CATV**
S13	t13	t13		g1	g1	g1	g1		g1	g1		**TUNER**
S14	t14	t14		a1, d1	f1	f1	f1	**We**	f1	f1		**AUTO**
S15	t15	t15	**SAP**	b1	b1	b1	b1	▷	b1	b1		**SAT**
S16	t16	t16	**MAIN/L**	**INDEX**	a1	a1	a1	▷	a1	a1	▭	**EP**

4 BOARD (CONDUCTOR SIDE)

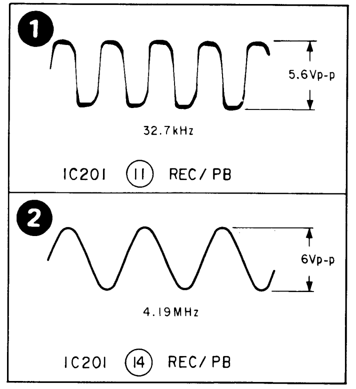

SLV715/UB
IC201
30
31
50
51
81
80
100
1
2
C222
R245
R246
R249
R254
R312
R214
R247
R252
R216
R217
R227
R223
R224
R225
R222
R201
R229
R231
R256
R228
R204
R209
R239
R235
R234
D201
D202
D203
D204
D206
D208
D209
D211
D212
D216
D217
D218
Q201
Q202
Q205
Q206
C202
C204
C205
C206
C208
C215
C221
C223
C224
C232
1-635-212-
24
13
14
15
16
17
18
19
20
21

RM-41 BOARD (CONDUCTOR SIDE)


D402
AUTO TRACKING
CN401
1
5
IC401
3
2
1
D404
AUDIO INSERT
D405
VIDEO INSERT
D406
HIGH SPEED REWIND
1-635-213-
24

2G	1G
d2	d2
e2	e2
c2	c2
g2	g2
f2	f2
b2	b2
	a2
/	SP
VTR	LP
S	LINE
	SIMUL
	CATV
	TUNER
	AUTO
	SAT
oo	EP

MF-94 BOARD



* A-6756-033-A MF-94 BOARD, COMPLETE (SLV-715)
****
* A-6756-042-A MF-94 BOARD, COMPLETE (SLV-715VP)
****
* A-6756-052-A MF-94 BOARD, COMPLETE (SLV-715UB)
****
(Ref. No 8,000 Series)

* 1-635-213-24 RM-41 BOARD (Ref. No 8,000 Series)
****

< DIODE >

D201	8-719-911-19	DIODE	1SS119
D202	8-719-911-19	DIODE	1SS119
D203	8-719-911-19	DIODE	1SS119
D204	8-719-911-19	DIODE	1SS119
D206	8-719-104-34	DIODE	1S2836
D208	8-719-105-82	DIODE	RD5.1M-B2
D209	8-719-106-08	DIODE	RD6.2M-B2
D211	8-719-400-18	DIODE	MA152WK
D212	8-719-400-18	DIODE	MA152WK
D216	8-719-400-18	DIODE	MA152WK
D217	8-719-400-18	DIODE	MA152WK
D218	8-719-104-34	DIODE	DAP202K-T-146
D219	8-719-106-08	DIODE	RD6.2M-B2
D402	8-719-955-04	DIODE	PY5504S-1 (YEL) (AUTO TRACKING)
D404	8-719-940-99	DIODE	SLR-34VC3 (AUDIO INSERT)
D405	8-719-940-99	DIODE	SLR-34VC3 (VIDEO INSERT)
D406	8-719-940-82	DIODE	SLR-34MC3

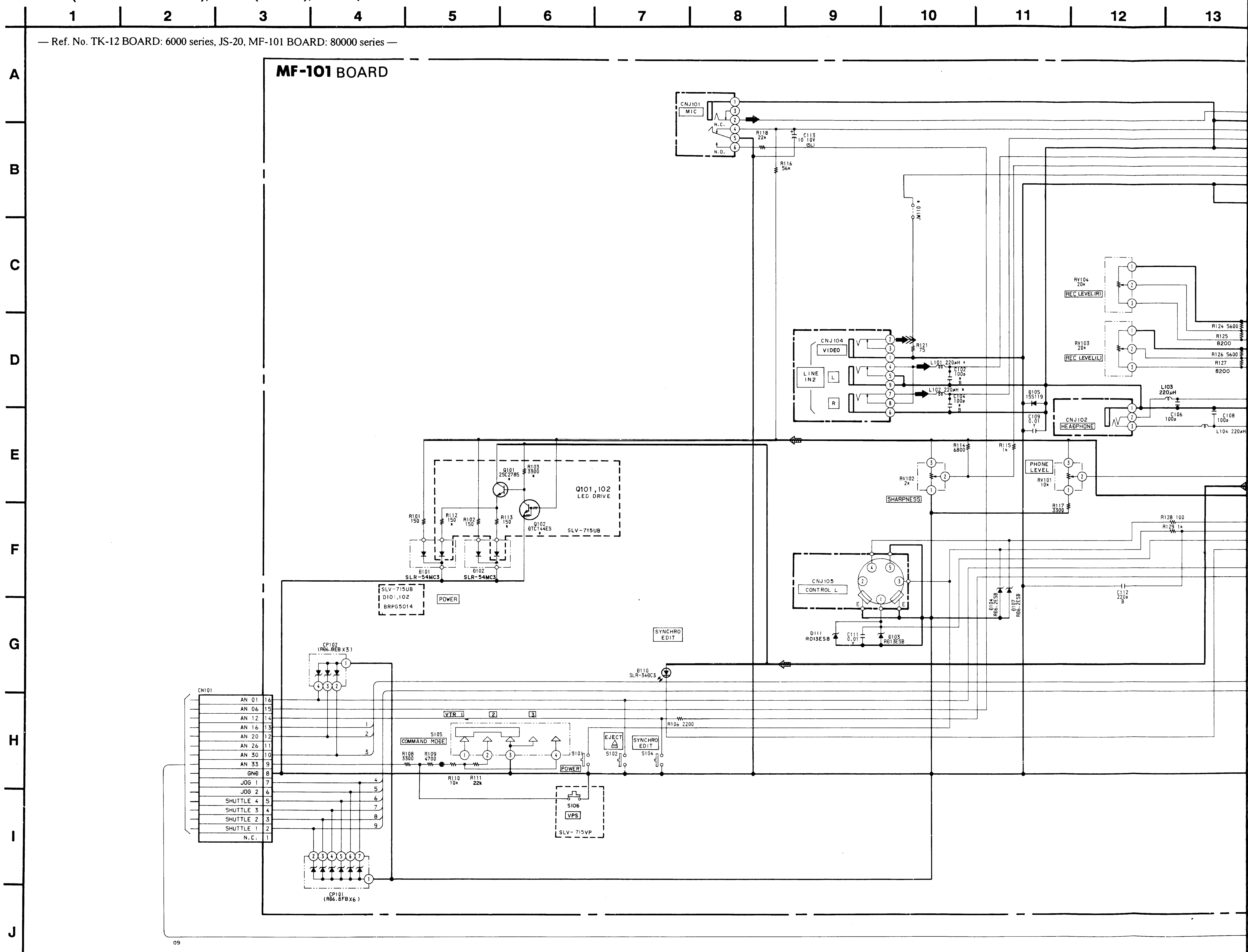
< IC >

IC201	8-759-504-10	IC	MB89794B-PAL
IC202	8-759-748-54	IC	CAT35C202P
IC203	8-759-502-50	IC	S-8053HNB
IC204	8-759-947-53	IC	S-8054ALR
IC205	8-759-961-38	IC	BA6138

< TRANSISTOR >

Q201	8-729-230-49	TRANSISTOR	2SC2712-YG
Q202	8-729-230-49	TRANSISTOR	2SC2712-YG
Q205	8-729-901-01	TRANSISTOR	DTC144EK
Q206	8-729-901-01	TRANSISTOR	DTC144EK

MF-101 (FUNCTION SWITCH), TK-12 (RELAY), JS-20 (JOG/SHUTTLE), SWITCH BLOCK SCHEMATIC DIAGRAMS



— Ref. No. TK-12 BOARD: 6000 series, JS-20, MF-101 BOARD: 80000 series —

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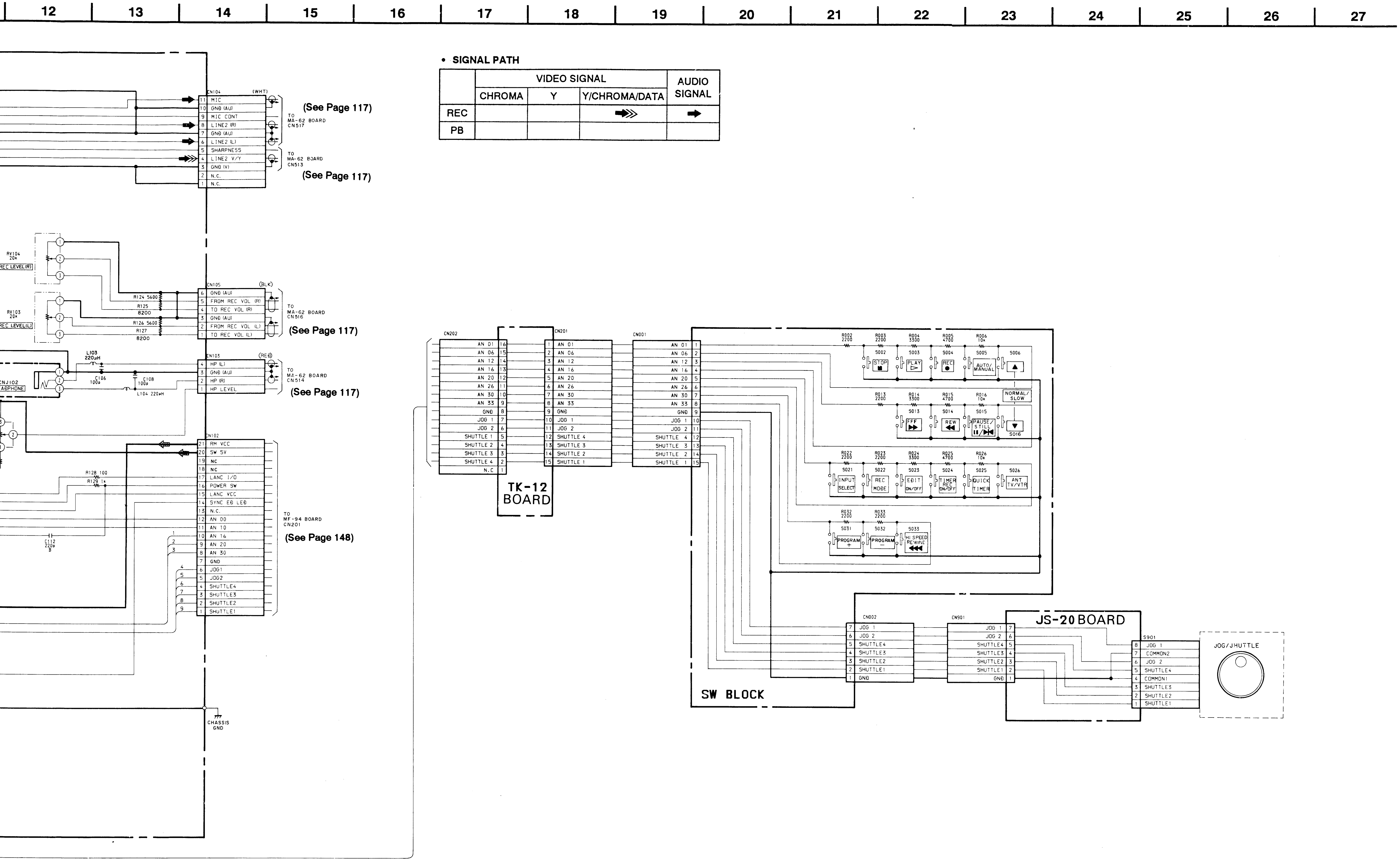
10
11
12
13
A
B
C
D
E
F
G
H
I
J
MF-101 BOARD
CNJ101
MIC
N.C.
N.O.
R118 22k
C113 10 10V (SL)
R116 56k
JW110 *
RV104 20k
REC LEVEL(R)
RV103 20k
REC LEVEL(L)
R124 5600
R125 8200
R126 5600
R127 8200
CNJ104
VIDEO
LINE IN2
L
R
R121 75
L101 220μH *
C102 100p * B
L102 220μH *
C104 100p * B
D105 1SS119
C109 0.01 Y
L103 220μH
C106 100p
C108 100p
L104 220μH
CNJ102
HEADPHONE
R114 6800
R115 1k
RV102 2k
SHARPNESS
PHONE LEVEL
RV101 10k
R117 3300
R128 100
R129 1k
Q101 2SC2785 *
R103 3300 *
Q101,102
LED DRIVE
R101 150
R112 150 *
R102 150
R113 150 *
Q102 DTC144ES *
SLV-715UB
D101 SLR-54MC3
D102 SLR-54MC3
SLV-715UB
D101,102
BRPG5014
POWER
CNJ105
CONTROL L
E
D111 RD13ESB
C111 0.01 Y
D103 RD13ESB
D104 RD6.2ESB
D107 RD6.2ESB
C112 220p B
SYNCHRO EDIT
D110 SLR-340C3
CP102 (RD6.8EB X3)
CN101
AN 01 16
AN 06 15
AN 12 14
AN 16 13
AN 20 12
AN 26 11
AN 30 10
AN 33 9
GND 8
JOG 1 7
JOG 2 6
SHUTTLE 4 5
SHUTTLE 3 4
SHUTTLE 2 3
SHUTTLE 1 2
N.C. 1
VTR 1
2
3
S105
COMMAND MODE
R108 3300
R109 4700
R110 10k
R111 22k
S101
POWER
EJECT
S102
SYNCHRO EDIT
S104
R106 2200
S106
VPS
SLV-715VP
CP101 (RD6.8FB X6)
09

FUNCTION SW FUNCTION SW


12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
CN104 (WHT)
11 MIC
10 GND (AU)
9 MIC CONT
8 LINE2 (R)
7 GND (AU)
6 LINE2 (L)
5 SHARPNESS
4 LINE2 V/Y
3 GND (V)
2 N.C.
1 N.C.
TO MA-62 BOARD CN517
TO MA-62 BOARD CN513
(See Page 117)
(See Page 117)
RV104 20k
REC LEVEL(R)
RV103 20k
REC LEVEL(L)
R124 5600
R125 8200
R126 5600
R127 8200
CN105 (BLK)
6 GND (AU)
5 FROM REC VOL (R)
4 TO REC VOL (R)
3 GND (AU)
2 FROM REC VOL (L)
1 TO REC VOL (L)
TO MA-62 BOARD CN516
(See Page 117)
L103 220μH
C106 100p
C108 100p
L104 220μH
CNJ102
HEADPHONE
CN103 (RED)
4 HP (L)
3 GND (AU)
2 HP (R)
1 HP LEVEL
TO MA-62 BOARD CN514
(See Page 117)
CN102
21 RM VCC
20 SW 5V
19 NC
18 NC
17 LANC I/O
16 POWER SW
15 LANC VCC
14 SYNC ED LED
13 N.C.
12 AN 00
11 AN 10
10 AN 16
9 AN 20
8 AN 30
7 GND
6 JOG1
5 JOG2
4 SHUTTLE4
3 SHUTTLE3
2 SHUTTLE2
1 SHUTTLE1
R128 100
R129 1k
C112 220p B
TO MF-94 BOARD CN201
(See Page 148)
CHASSIS GND
CN202
AN 01
AN 06
AN 12
AN 16
AN 20
AN 26
AN 30
AN 33
GND
JOG 1
JOG 2
SHUTTLE 1
SHUTTLE 2
SHUTTLE 3
SHUTTLE 4
N.C
CN201
TK-12 BOARD
CN001
SW BLOCK
R002 2200
R003 2200
R004 3300
R005 4700
R006 10k
S002 STOP
S003 PLAY
S004 REC
S005 AUTO/MANUAL
S006
NORMAL/SLOW
R013 2200
R014 3300
R015 4700
R016 10k
S013 FFF
S014 REW
S015 PAUSE/STILL
S016
R022 2200
R023 2200
R024 3300
R025 4700
R026 10k
S021 INPUT SELECT
S022 REC MODE
S023 EDIT ON/OFF
S024 TIMER REC ON/OFF
S025 QUICK TIMER
S026 ANT TV/VTR
R032 2200
R033 2200
S031 PROGRAM +
S032 PROGRAM −
S033 HI SPEED REWIND
CN002
7 JOG 1
6 JOG 2
5 SHUTTLE4
4 SHUTTLE3
3 SHUTTLE2
2 SHUTTLE1
1 GND
CN901
JS-20 BOARD
S901
8 JOG 1
7 COMMON2
6 JOG 2
5 SHUTTLE4
4 COMMON1
3 SHUTTLE3
2 SHUTTLE2
1 SHUTTLE1
JOG/SHUTTLE

- SIGNAL PATH

	VIDEO SIGNAL			AUDIO SIGNAL
	CHROMA	Y	Y/CHROMA/DATA	
REC			➡>>>	➡
PB				

FUNCTION SW **FUNCTION SW**

MF-101 (FUNCTION SWITCH), TK-12 (RELAY), JS-20 (JOG/SHUTTLE), SWITCH BLOCK PRINTED WIRING BOARDS

— Ref. No. TK-12 BOARD: 6000 series, JS-20, MF-101 BOARD: 80000 series —

MF-101 BOARD

D101	A-12
D102	A-12
D103	B-2
D104	C-8
D105	B-10
D107	C-7
D110	C-4
D111	C-7
Q101	C-3
Q102	C-2

MF-101 BOARD

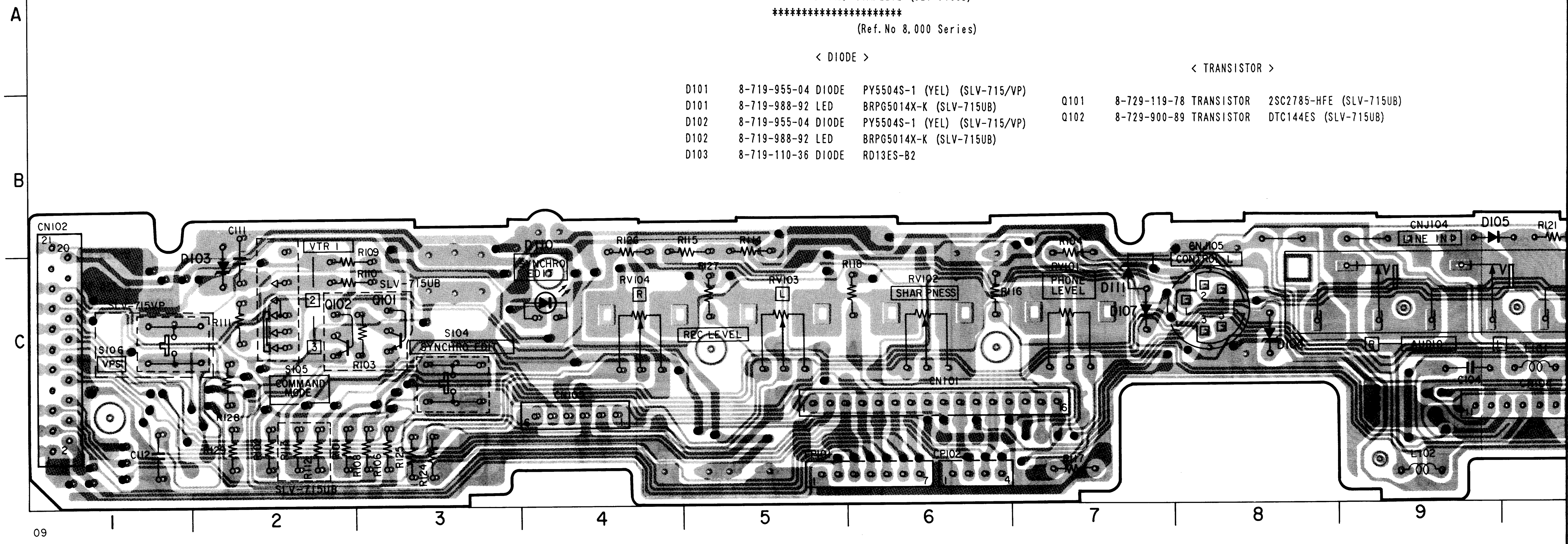
* A-6756-034-A MF-101 BOARD, COMPLETE (SLV-715)
****
* A-6756-043-A MF-101 BOARD, COMPLETE (SLV-715VP)
****
* A-6756-051-A MF-101 BOARD, COMPLETE (SLV-715UB)
****
(Ref. No 8, 000 Series)

< DIODE >

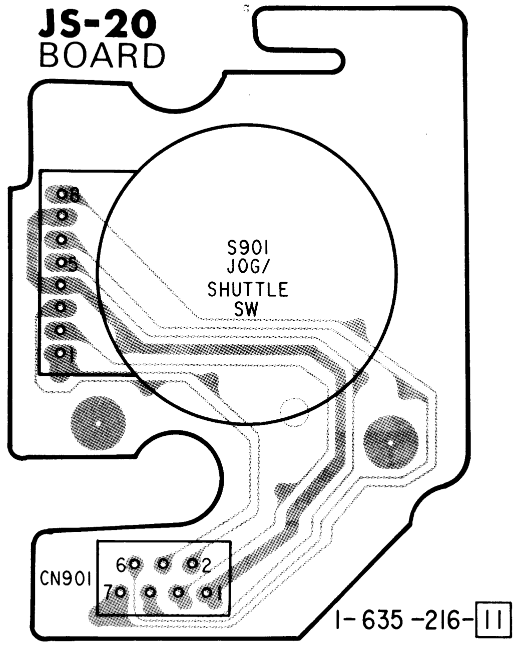
D101	8-719-955-04	DIODE	PY5504S-1 (YEL) (SLV-715/VP)
D101	8-719-988-92	LED	BRPG5014X-K (SLV-715UB)
D102	8-719-955-04	DIODE	PY5504S-1 (YEL) (SLV-715/VP)
D102	8-719-988-92	LED	BRPG5014X-K (SLV-715UB)
D103	8-719-110-36	DIODE	RD13ES-B2
D104	8-719-109-93	DIODE	RD6. 2ES-B2
D105	8-719-911-19	DIODE	1SS119
D107	8-719-109-93	DIODE	RD6. 2ES-B2
D110	8-719-946-30	DIODE	SLR-34DC3
D111	8-719-110-36	DIODE	RD13ES-B2

< TRANSISTOR >

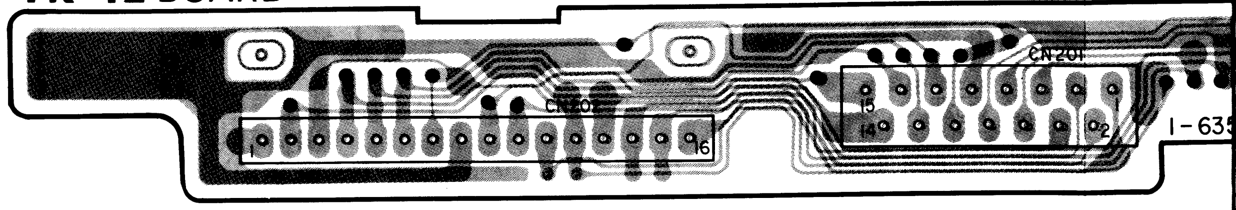
Q101	8-729-119-78	TRANSISTOR	2SC2785-HFE (SLV-715UB)
Q102	8-729-900-89	TRANSISTOR	DTC144ES (SLV-715UB)


A
B
C
1
2
3
4
5
6
7
8
9
09
CN102
D103
C111
VTR I
R109
R110
SLV-715UB
Q102
Q101
SLV-715VP
R111
S106
VPS
S105
COMMAND MODE
R103
S104
SYNCHRO EDIT
R128
C112
SLV-715UB
D110
SYNCHRO EDIT
R126
R115
R114
R127
RV104
RV103
REC LEVEL
R118
RV102
SHARPNESS
R116
CN101
CP101
CP102
RV101
PHONE LEVEL
D111
D107
CN105
CONTROL L
D104
CNJ104
LINE IN
D105
R121
AUDIO
C104
L102

JS-20 BOARD


S901
JOG/
SHUTTLE
SW
CN901
1-635-216-11

TK-12 BOARD


CN201
CN101
1-635

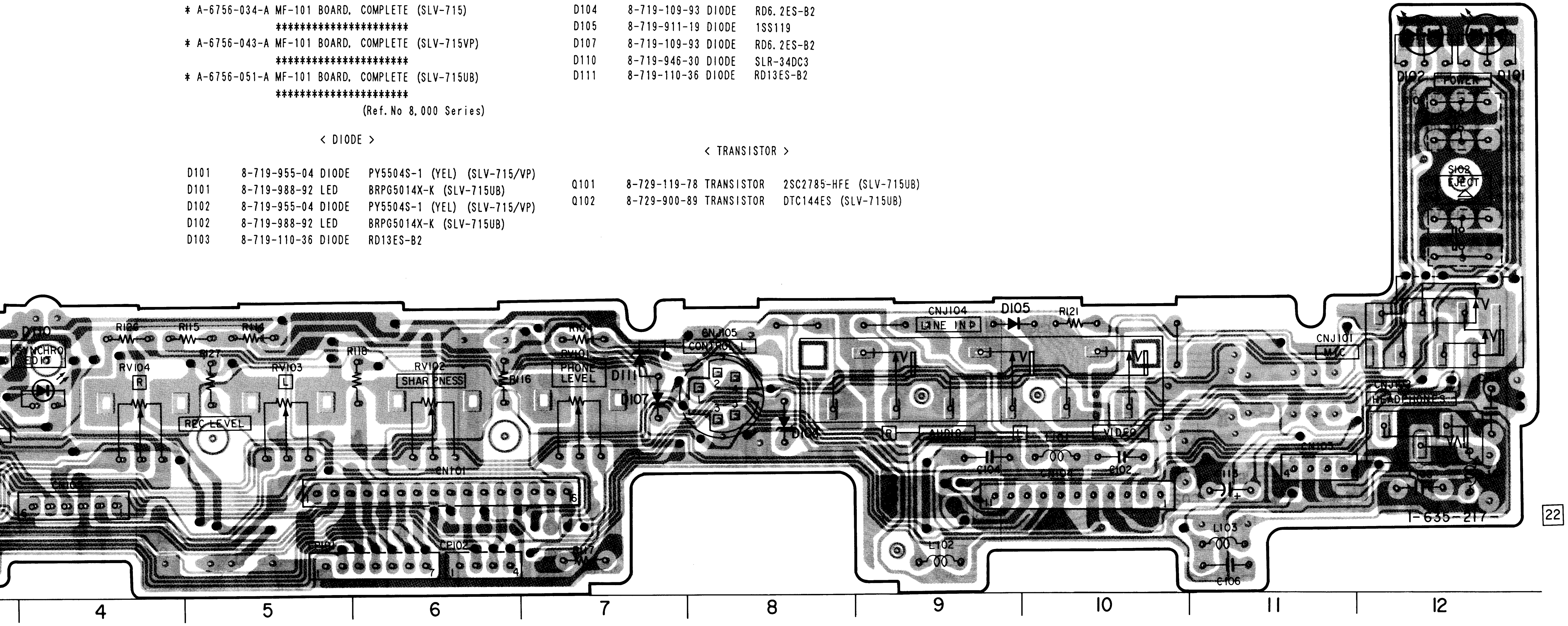
* A-6756-034-A MF-101 BOARD, COMPLETE (SLV-715)
****
* A-6756-043-A MF-101 BOARD, COMPLETE (SLV-715VP)
****
* A-6756-051-A MF-101 BOARD, COMPLETE (SLV-715UB)
****
(Ref. No 8,000 Series)

< DIODE >

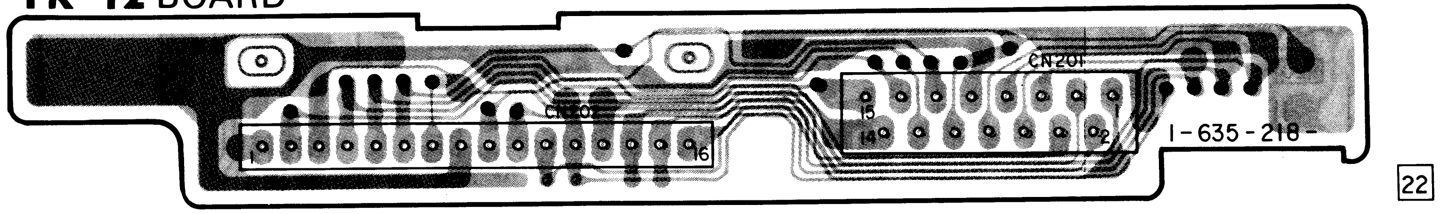
D101	8-719-955-04	DIODE	PY5504S-1 (YEL) (SLV-715/VP)
D101	8-719-988-92	LED	BRPG5014X-K (SLV-715UB)
D102	8-719-955-04	DIODE	PY5504S-1 (YEL) (SLV-715/VP)
D102	8-719-988-92	LED	BRPG5014X-K (SLV-715UB)
D103	8-719-110-36	DIODE	RD13ES-B2
D104	8-719-109-93	DIODE	RD6.2ES-B2
D105	8-719-911-19	DIODE	1SS119
D107	8-719-109-93	DIODE	RD6.2ES-B2
D110	8-719-946-30	DIODE	SLR-34DC3
D111	8-719-110-36	DIODE	RD13ES-B2

< TRANSISTOR >

Q101	8-729-119-78	TRANSISTOR	2SC2785-HFE (SLV-715UB)
Q102	8-729-900-89	TRANSISTOR	DTC144ES (SLV-715UB)


D102
POWER
D101
S102
EJECT
D110
SYNCHRO EDIT
R126
R115
R114
R127
RV104
R
REC LEVEL
RV103
L
R118
RV102
SHARPNESS
R116
R104
RV101
PHONE LEVEL
D111
D107
CN105
CONTROL L
D104
CNJ104
LINE IN
D105
R121
AUDIO
VIDEO
C104
C102
CNJ101
MIC
CNJ102
HEADPHONES
CN101
CP101
CP102
L102
L103
C106
1-635-217-
22
4
5
6
7
8
9
10
11
12

TK-12 BOARD


CN201
CN202
1
16
15
14
2
1-635-218-
22

16-11

NA-7 (NICAM DECODER), NM-1 (NICAM SELECTOR) PRINTED WIRING BOARDS (SLV-715UB only)

— Ref. No. NA-7 BOARD: 3000 series, NM-1 BOARD: 8000 series —

*A-6721-376-A NA-7 BOARD, COMPLETE (SLV-715UB)
******************** (Ref. No. 9000 series)

DIODE

D001	8-719-801-52	DIODE 1SS190-TE85L
D002	8-719-801-52	DIODE 1SS190-TE85L
D003	8-719-400-18	DIODE 1S2837-T1
D004	8-719-400-18	DIODE 1S2837-T1
D005	8-719-400-18	DIODE 1S2837-T1
D006	8-719-400-18	DIODE 1S2837-T1
D007	8-719-400-18	DIODE 1S2837-T1
D008	8-719-104-34	DIODE 1S2835-T1

IC

IC001	8-759-231-09	IC TA8662N
IC002	8-759-231-28	IC TC6011N
IC003	8-752-331-22	IC CXK5864BSP-10L
IC004	8-759-231-29	IC TD6710AN
IC005	8-759-900-72	IC NE5532P
IC006	8-759-900-72	IC NE5532P

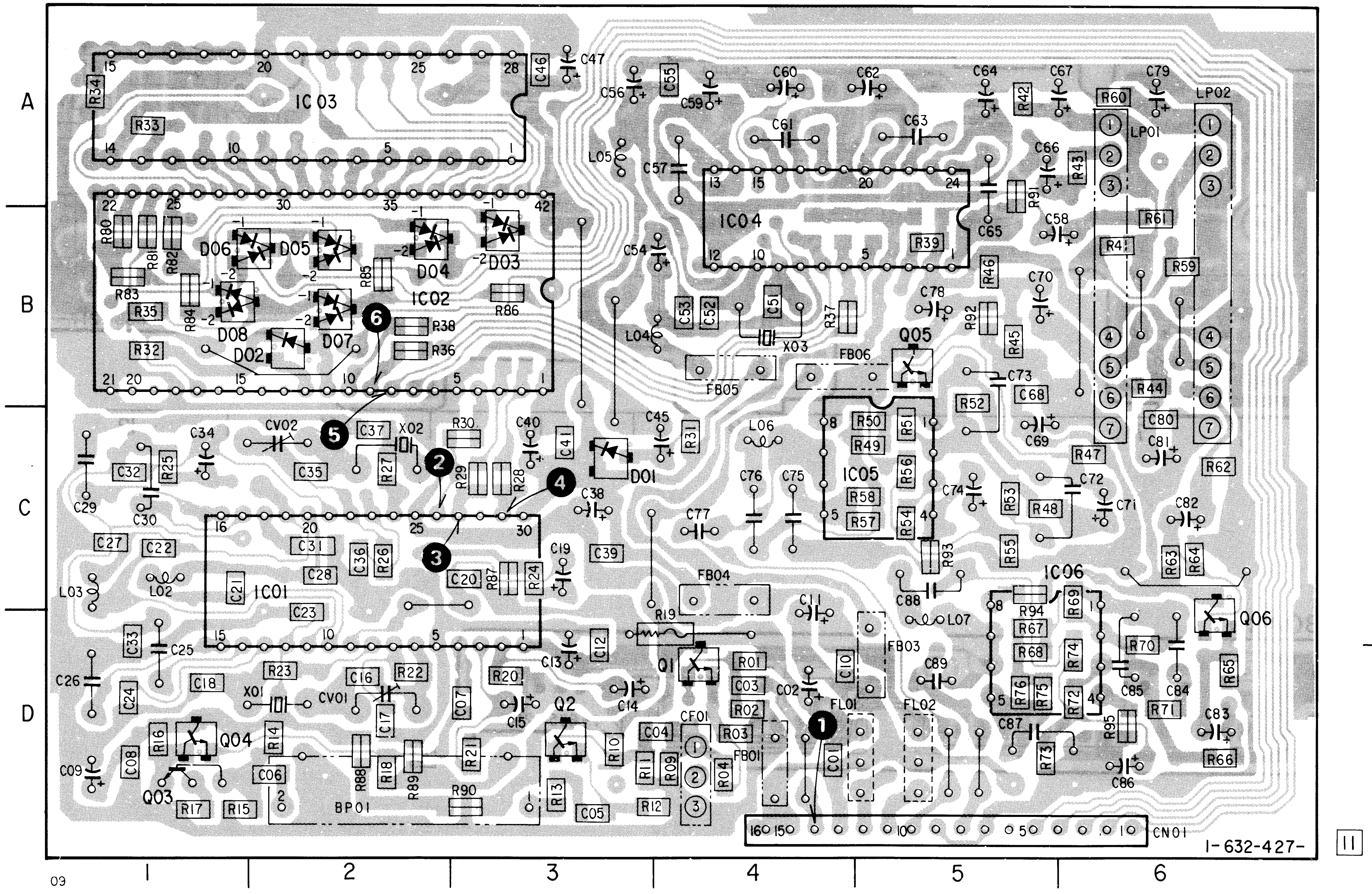
TRANSISTOR

Q001	8-729-100-66	TRANSISTOR 2SC1623-L6
Q002	8-729-100-66	TRANSISTOR 2SC1623-L6
Q003	8-729-104-80	TRANSISTOR 2SC3355
Q004	8-729-100-66	TRANSISTOR 2SC1623-L6
Q005	8-729-100-66	TRANSISTOR 2SC1623-L6
Q006	8-729-100-66	TRANSISTOR 2SC1623-L6

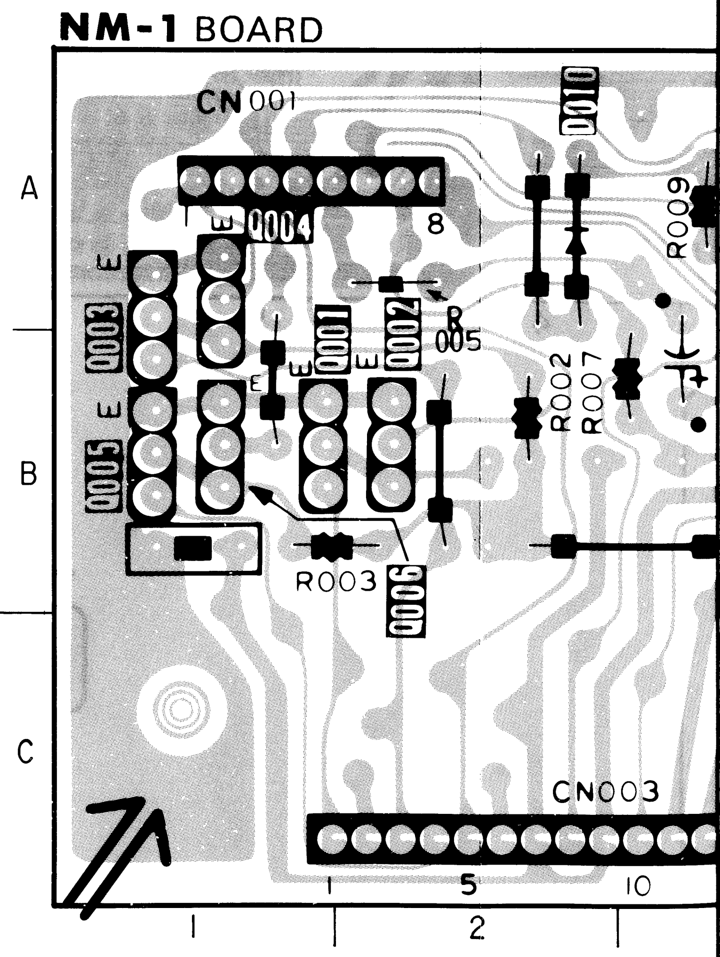
NA-7 BOARD

D001	C-3
D002	D-2
D003	B-3
D004	B-2
D005	B-2
D006	B-2
D007	B-2
D008	B-1
IC001	C-2
IC002	B-1
IC003	A-1
IC004	A-4
IC005	C-5
IC006	D-5
Q001	D-4
Q002	D-3
Q003	D-1
Q004	D-1
Q005	B-5
Q006	D-6

NA-7 BOARD


A
B
C
D
1
2
3
4
5
6
IC03
IC04
IC02
IC01
IC05
IC06
D01
D02
D03
D04
D05
D06
D07
D08
Q1
Q2
Q03
Q04
Q05
Q06
X01
X02
X03
CV01
CV02
LP01
LP02
BP01
CN01
FL01
FL02
CF01
FB01
FB03
FB04
FB05
FB06
1-632-427-
11
03

NM-1 BOARD

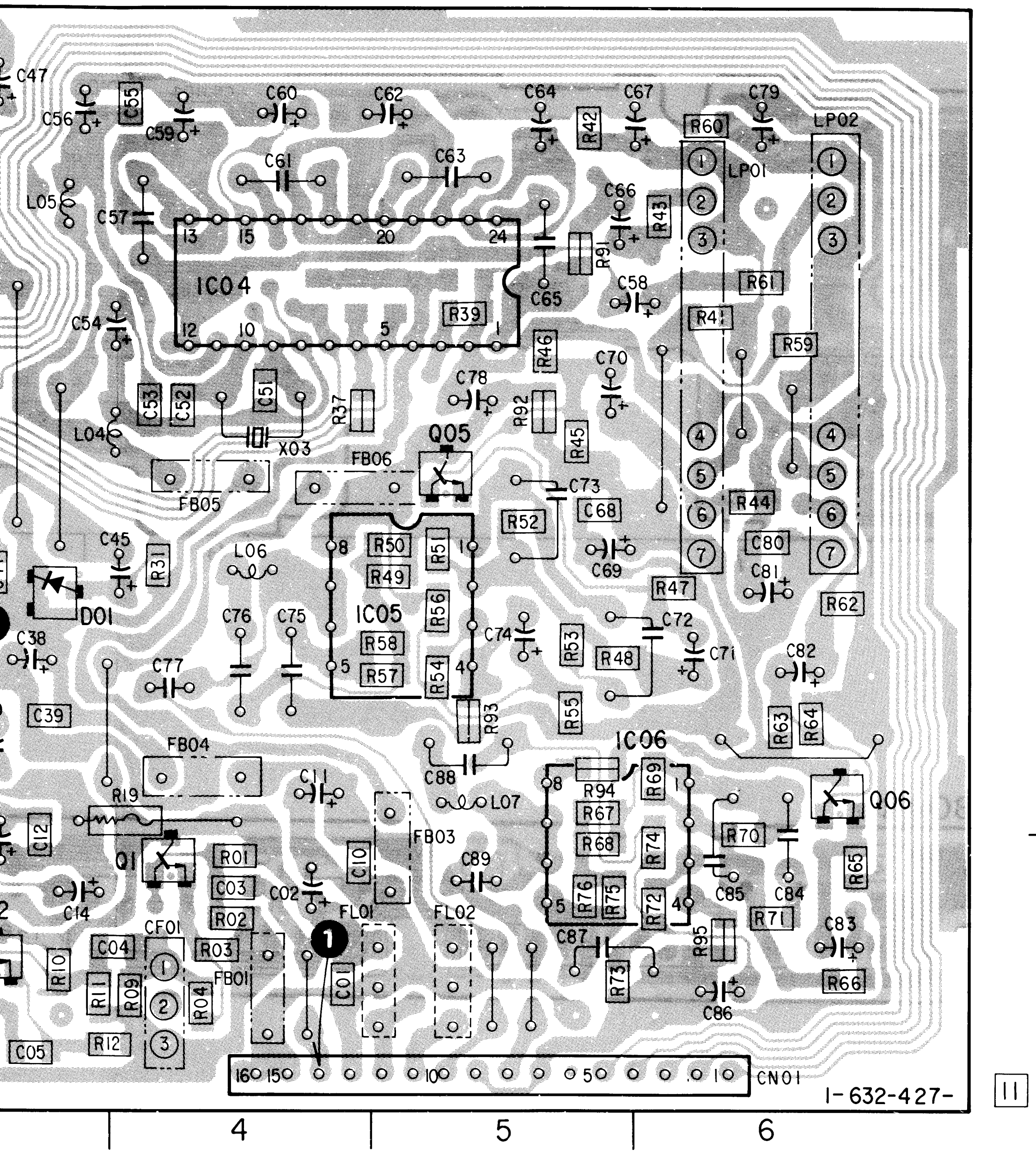

A
B
C
1
2
CN001
CN003
Q001
Q002
Q003
Q004
Q005
Q006
R002
R003
R005
R007
R009
D010
E
8
1
5
10

IC

31-09	IC TA8662N
31-28	IC TC6011N
31-22	IC CXK5864BSP-10L
31-29	IC TD6710AN
00-72	IC NE5532P
00-72	IC NE5532P

TRANSISTOR

Q001	8-729-100-66	TRANSISTOR 2SC1623-L6
Q002	8-729-100-66	TRANSISTOR 2SC1623-L6
Q003	8-729-104-80	TRANSISTOR 2SC3355
Q004	8-729-100-66	TRANSISTOR 2SC1623-L6
Q005	8-729-100-66	TRANSISTOR 2SC1623-L6
Q006	8-729-100-66	TRANSISTOR 2SC1623-L6



IC04
IC05
IC06
Q05
Q06
Q1
D01
X03
LP01
LP02
FB01
FB03
FB04
FB05
FB06
FL01
FL02
CF01
L04
L05
L06
L07
CN01
1-632-427-
11
4
5
6

*1-632-333-11 NM-1 BOARD (SLV-715UB)
********** (Ref. No. 10000 series)

DIODE

D002	8-719-911-19	DIODE 1SS119
D003	8-719-911-19	DIODE 1SS119
D010	8-719-911-19	DIODE 1SS119

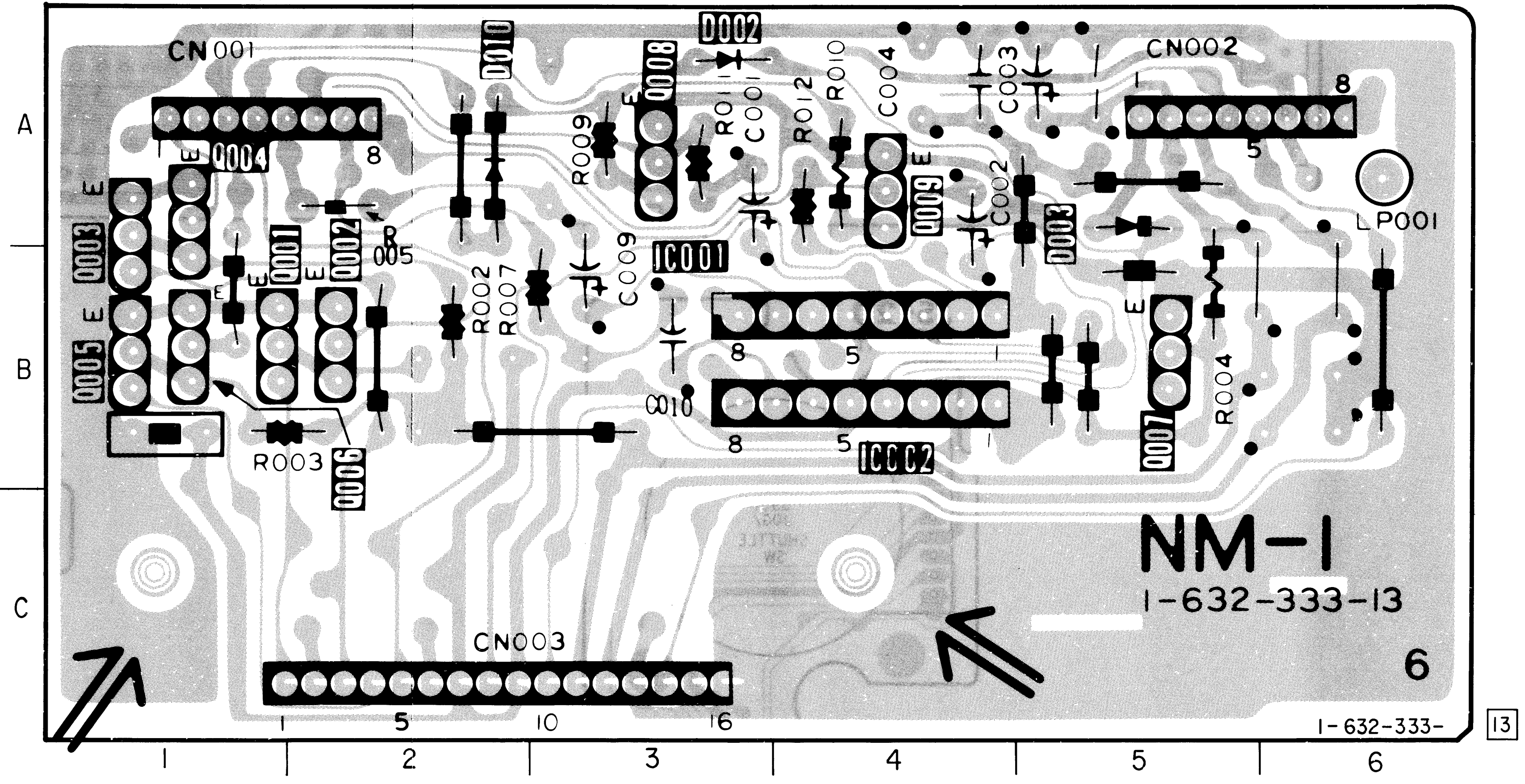
IC

IC001	8-759-800-81	IC LA7016
IC002	8-759-800-81	IC LA7016

TRANSISTOR

Q003	8-729-900-80	TRANSISTOR DTC114ES
Q004	8-729-900-80	TRANSISTOR DTC114ES
Q005	8-729-900-80	TRANSISTOR DTC114ES
Q006	8-729-900-80	TRANSISTOR DTC114ES
Q007	8-729-900-80	TRANSISTOR DTC114ES
Q008	8-729-303-37	TRANSISTOR 2SD655E
Q009	8-729-303-37	TRANSISTOR 2SD655E

NM-1 BOARD

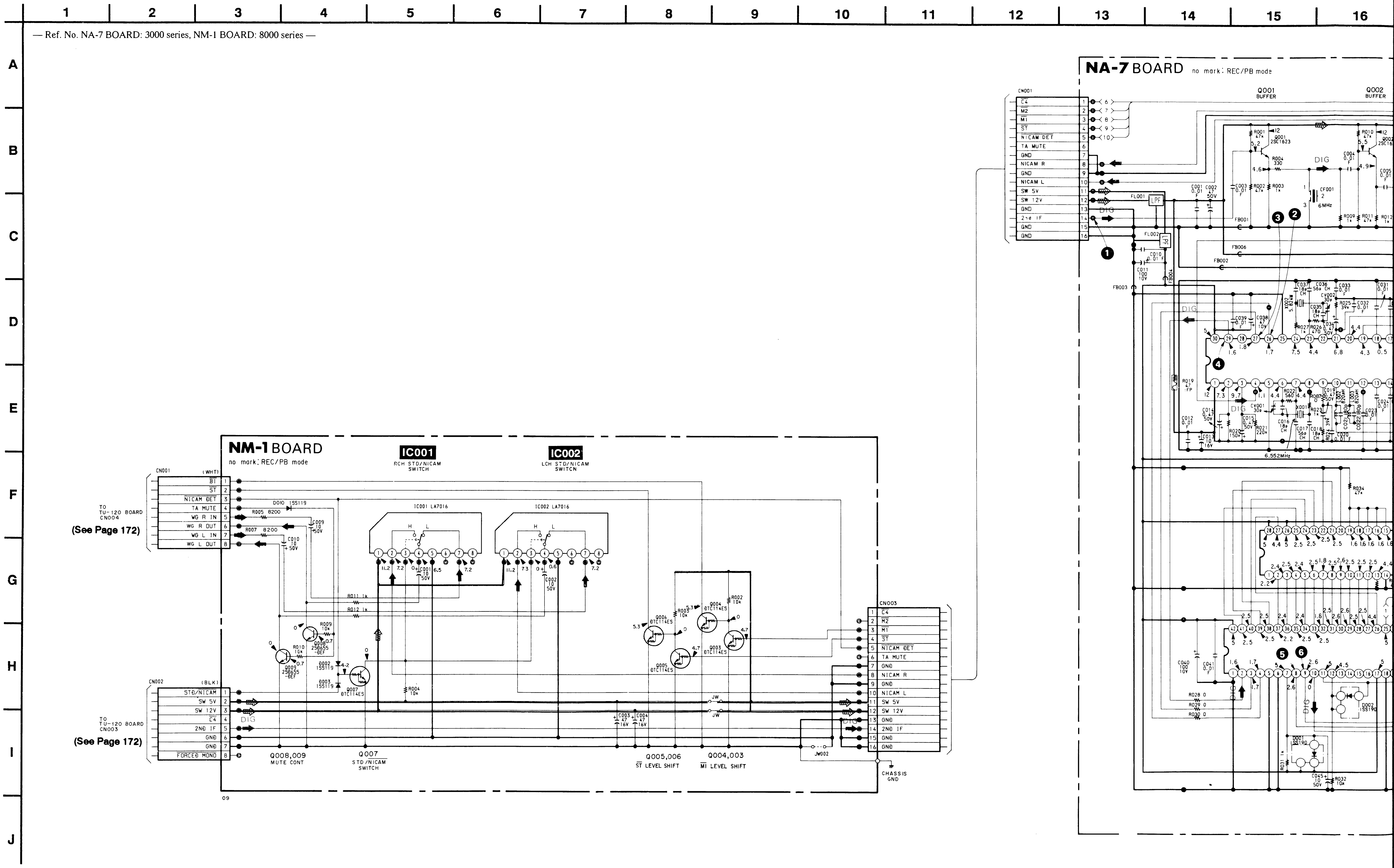


CN001
CN002
CN003
D002
D010
Q003
Q004
Q005
Q006
Q007
Q008
Q009
Q001
Q002
IC001
IC002
R002
R003
R004
R005
R007
R009
R010
R011
R012
C001
C002
C003
C004
C009
C010
LP001
NM-1
1-632-333-13
1-632-333-
13
A
B
C
1
2
3
4
5
6

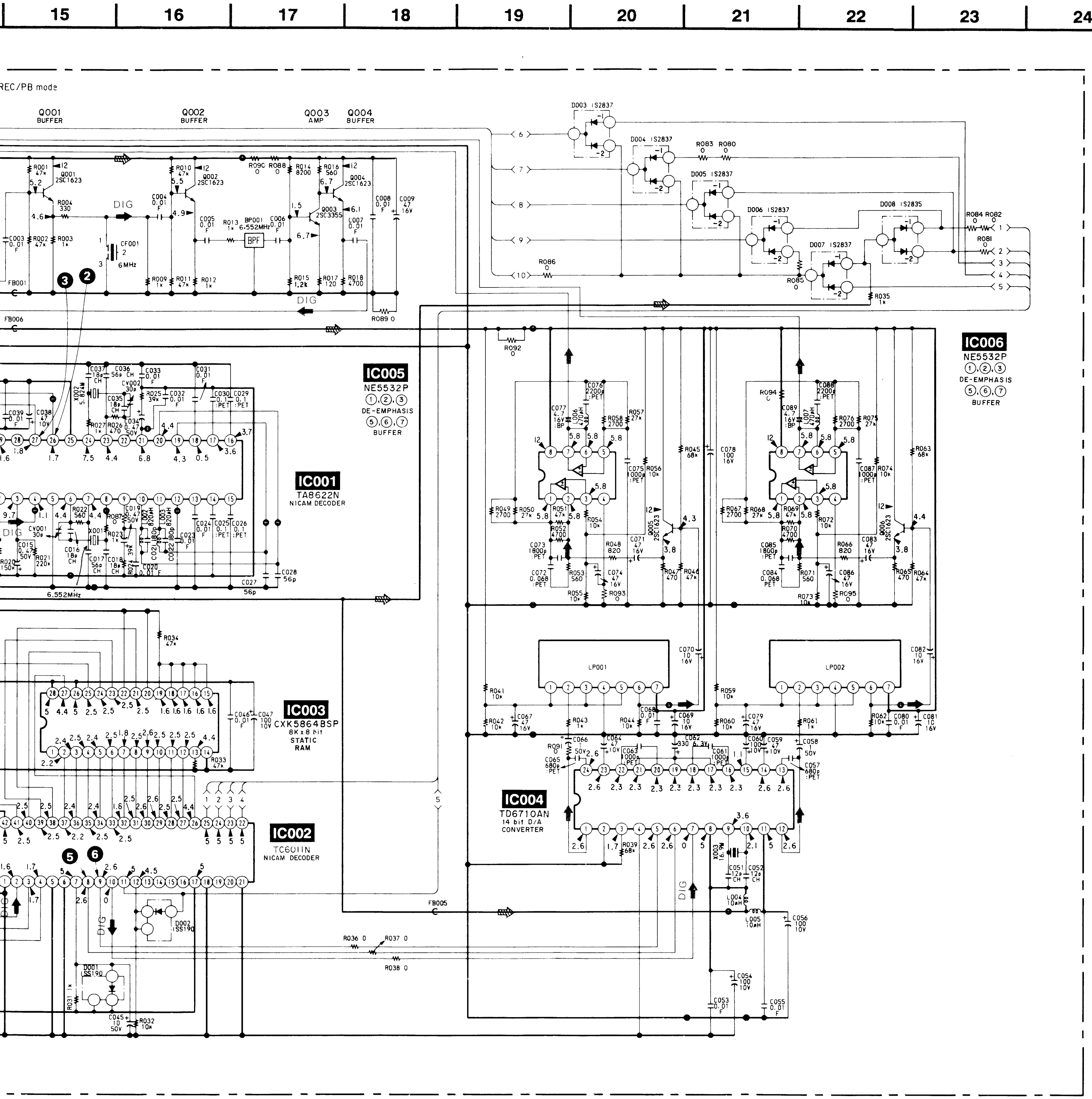
NM-1 BOARD	
D002	A-3
D003	A-5
D010	A-2
IC001	B-4
IC002	B-4
Q001	B-2
Q002	B-2
Q003	A-1
Q004	A-1
Q005	B-1
Q006	B-1
Q007	B-5
Q008	A-3
Q009	A-4

NA-7 (NICAM DECODER), NM-1 (NICAM SELECTOR) SCHEMATIC DIAGRAMS (SLV-715UB only)

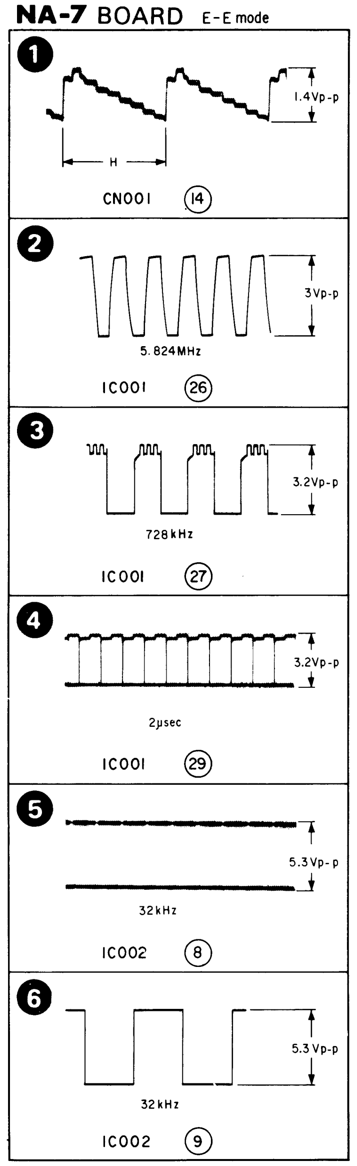
— Ref. No. NA-7 BOARD: 3000 series, NM-1 BOARD: 8000 series —



1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
A
B
C
D
E
F
G
H
I
J
NM-1 BOARD
no mark: REC/PB mode
IC001
RCH STD/NICAM SWITCH
IC002
LCH STD/NICAM SWITCH
IC001 LA7016
IC002 LA7016
CN001 (WHT)
BT
ST
NICAM DET
TA MUTE
WG R IN
WG R OUT
WG L IN
WG L OUT
TO TU-120 BOARD CN004
(See Page 172)
CN002 (BLK)
STD/NICAM
SW 5V
SW 12V
C4
2ND IF
GND
GND
FORCED MONO
TO TU-120 BOARD CN003
(See Page 172)
D010 1SS119
R005 8200
R007 8200
C009 10 50V
C010 10 50V
R011 1k
R012 1k
R009 10k
R010 10k
Q008 2SB655 -DEF
Q009 2SB655 -DEF
D002 1SS119
D003 1SS119
Q007 DTC114ES
R004 10k
Q006 DTC114ES
Q005 DTC114ES
Q004 DTC114ES
Q003 DTC114ES
R003 10k
R002 10k
C001 10 50V
C002 10 50V
C003 47 16V
C004 47 16V
JW
JW002
Q008,009 MUTE CONT
Q007 STD/NICAM SWITCH
Q005,006 ST LEVEL SHIFT
Q004,003 MI LEVEL SHIFT
CN003
C4
M2
MI
ST
NICAM DET
TA MUTE
GND
NICAM R
GND
NICAM L
SW 5V
SW 12V
GND
2ND IF
GND
GND
CHASSIS GND
DIG
NA-7 BOARD
no mark: REC/PB mode
CN001
Q001 BUFFER
Q002 BUFFER
Q001 2SC1623
R001 47k
R002 47k
R003 1k
R004 330
C003 0.01
C004 0.01
CF001 6MHz
FL001 LPF
FL002 LPF
FB001
FB002
FB003
FB004
FB006
C001 0.01
C002 47 50V
C010 0.01
C011 100 10V
X002 5.824MHz
X001
6.552MHz
R034 47k
C040 100 10V
C041 0.01
R028 0
R029 0
R030 0
D001 1SS190
D002 1SS190
R031 1k
R032 10k
C045 10 50V
❶
❷
❸
❹
❺
❻


15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
REC/PB mode
Q001 BUFFER
Q002 BUFFER
Q003 AMP
Q004 BUFFER
Q001 2SC1623
Q002 2SC1623
Q003 2SC3355
Q004 2SC1623
BPF001 6.552MHz
CF001 6MHz
DIG
D003 1S2837
D004 1S2837
D005 1S2837
D006 1S2837
D007 1S2837
D008 1S2835
IC005
NE5532P
①,②,③ DE-EMPHASIS
⑤,⑥,⑦ BUFFER
IC006
NE5532P
①,②,③ DE-EMPHASIS
⑤,⑥,⑦ BUFFER
IC001
TA8622N
NICAM DECODER
6.552MHz
IC003
CXK5864BSP
8K×8 bit
STATIC
RAM
IC002
TC6011N
NICAM DECODER
IC004
TD6710AN
14 bit D/A
CONVERTER
LP001
LP002
Q005 2SC1623
Q006 2SC1623
D001 1SS190
D002 1SS190
FB001
FB005
FB006
X002
X003

NA-7 BOARD E-E mode



- **SIGNAL PATH**

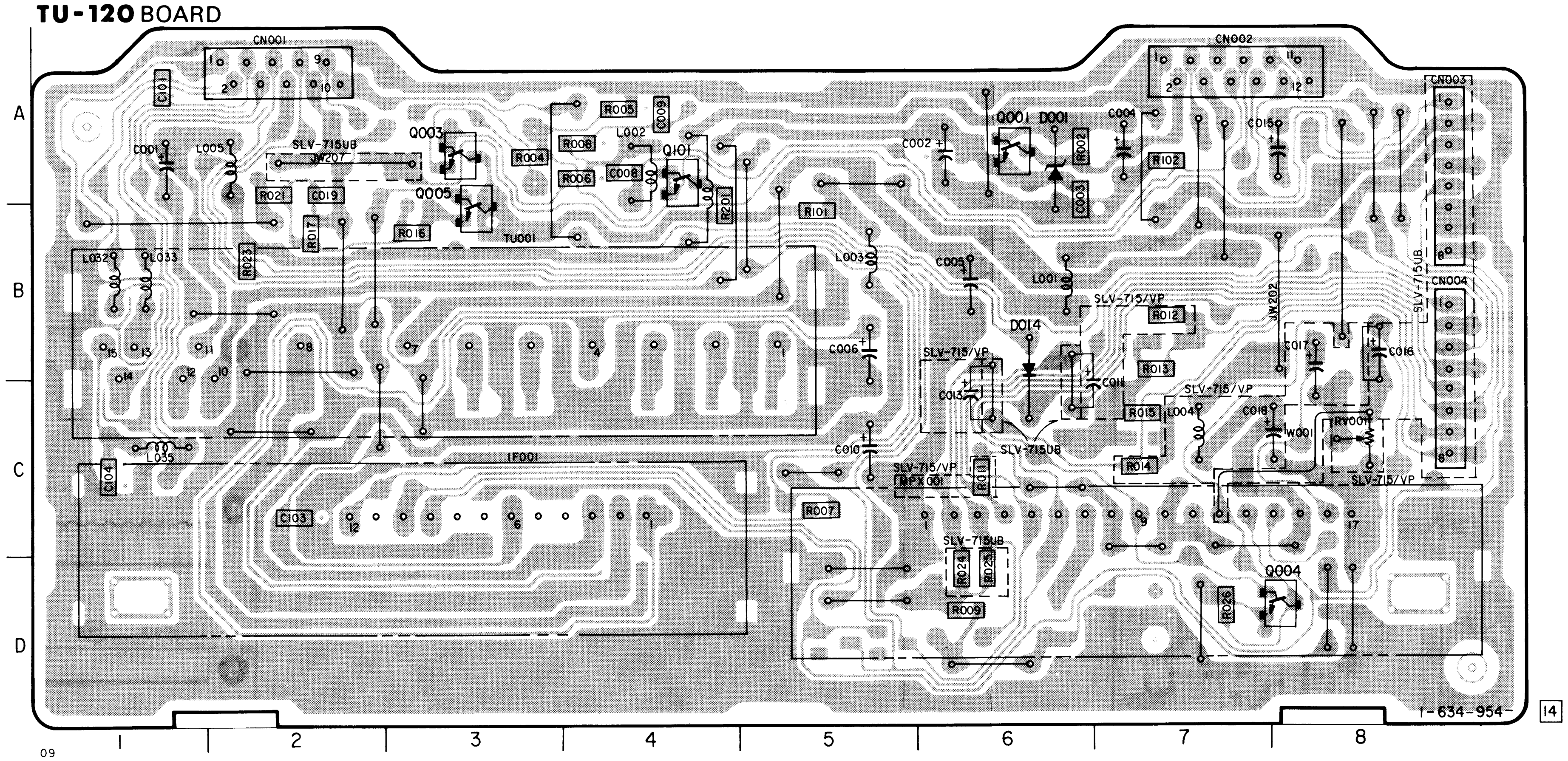
	VIDEO SIGNAL			AUDIO SIGNAL
	CHROMA	Y	Y/CHROMA/DATA	
REC				➡
PB				

TU-120 (TUNER) PRINTED WIRING BOARD

— Ref. No. TU-120 BOARD: 11000 series —

TU-120 BOARD

D001	A-6
D014	B-6
Q001	A-6
Q003	A-3
Q004	D-8
Q005	A-3
Q101	A-4


TU-120 BOARD
CN001
CN002
CN003
CN004
Q003
Q005
Q101
Q001
D001
D014
Q004
TU001
IF001
MPX001
RY001
SLV-715UB
SLV-715/VP
JW207
JW202
L002
L003
L004
L005
L032
L033
L035
L001
W001
C001
C002
C003
C004
C005
C006
C008
C009
C010
C011
C013
C015
C016
C017
C018
C019
C101
C103
C104
R002
R004
R005
R006
R007
R008
R009
R011
R012
R013
R014
R015
R016
R017
R021
R023
R024
R025
R026
R101
R102
R201
A
B
C
D
1
2
3
4
5
6
7
8
1-634-954-
14
09

A-6721-369-A TU-120 BOARD, COMPLETE (SLV-715)
****
A-6721-372-A TU-120 BOARD, COMPLETE (SLV-715VP)
****
A-6721-375-A TU-120 BOARD, COMPLETE (SLV-715UB)
****
(Ref. No 11, 000 Series)

< DIODE >

D001	8-719-110-78	DIODE	RD33ES-B2
D014	8-719-911-19	DIODE	1SS119

< TRANSISTOR >

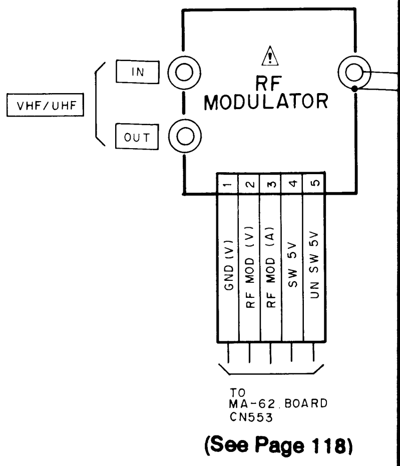
Q001	8-729-120-28	TRANSISTOR	2SC2412K-R
Q003	8-729-120-28	TRANSISTOR	2SC2412K-R
Q004	8-729-900-98	TRANSISTOR	DTC143TK
Q005	8-729-120-28	TRANSISTOR	2SC2412K-R
Q101	8-729-120-28	TRANSISTOR	2SC2412K-R

TU-120 (TUNER) SCHEMATIC DIAGRAM

1 2 3 4

— Ref. No. TU-120 BOARD: 11000 series —

A
B
C
D
E
F
G
H
I
J


VHF/UHF
IN
OUT
⚠
RF MODULATOR
1
2
3
4
5
GND (V)
RF MOD (V)
RF MOD (A)
SW 5V
UN SW 5V
TO
MA-62 BOARD
CN553

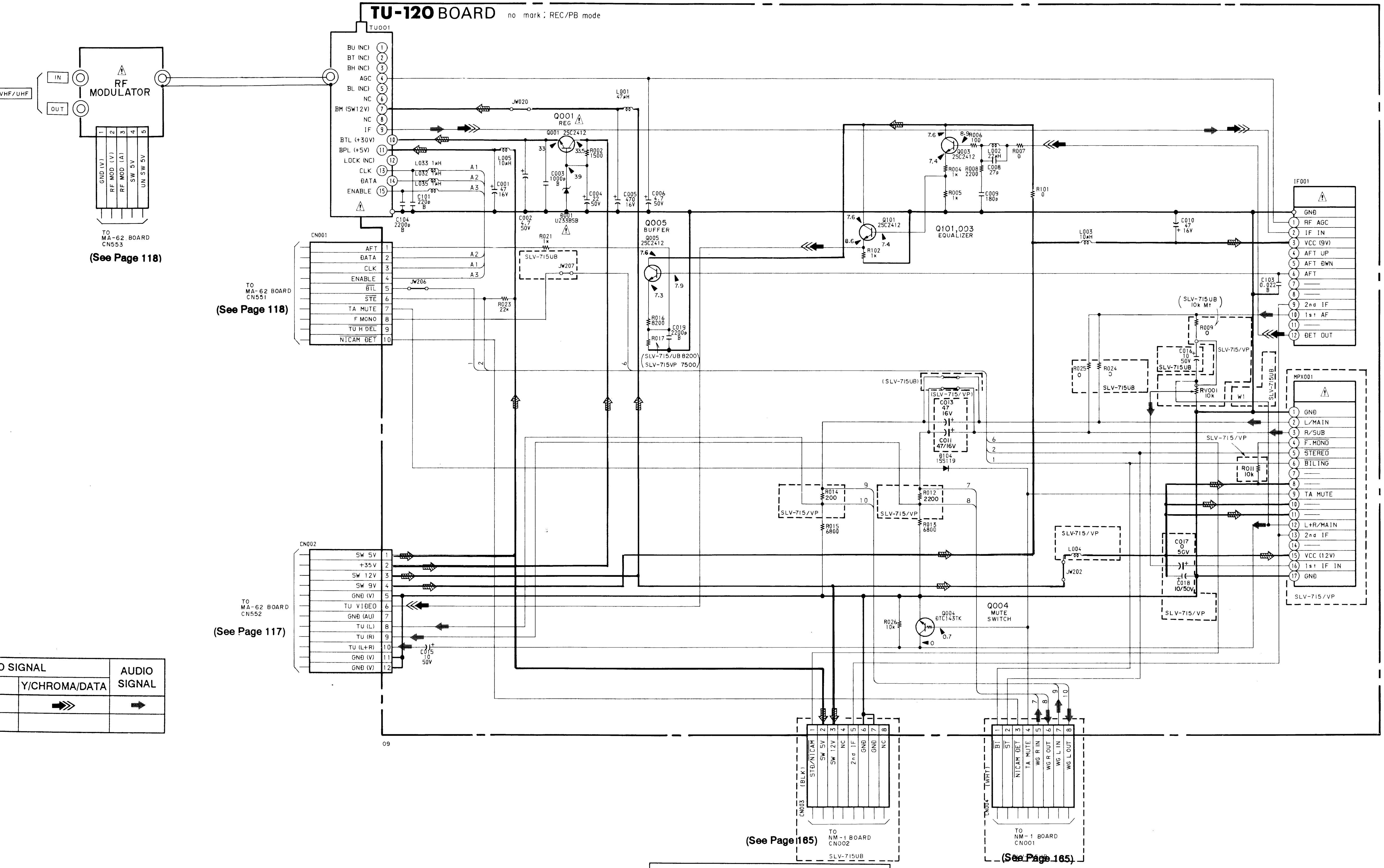
(See Page 118)

• **SIGNAL PATH**

	VIDEO SIGNAL			AUDIO SIGNAL
	CHROMA	Y	Y/CHROMA/DATA	
REC			➡≫	➡
PB				

	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

00 series —



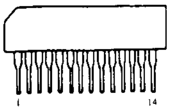
TU-120 BOARD
no mark : REC/PB mode
TU001
BU (NC) 1
BT (NC) 2
BH (NC) 3
AGC 4
BL (NC) 5
NC 6
BM (SW12V) 7
NC 8
IF 9
BTL (+30V) 10
BPL (+5V) 11
LOCK (NC) 12
CLK 13
DATA 14
ENABLE 15
RF MODULATOR
IN
OUT
VHF/UHF
GND (V)
RF MOD (V)
RF MOD (A)
SW 5V
UN SW 5V
TO MA-62 BOARD CN553
(See Page 118)
JW020
L001 47μH
Q001 REG
Q001 2SC2412
33
33.5
R002 1500
L005 10μH
C003 1000p B
39
D001 UZ33BSB
C001 47 16V
C004 22 50V
C005 470 16V
C006 4.7 50V
C002 4.7 50V
L033 1μH
L032 1μH
L035 1μH
A1
A2
A3
C101 220p B
C104 2200p B
CN001
AFT 1
DATA 2
CLK 3
ENABLE 4
BIL 5
STE 6
TA MUTE 7
F MONO 8
TU H DEL 9
NICAM DET 10
TO MA-62 BOARD CN551
(See Page 118)
JW206
R021 1k
SLV-715UB
JW207
R023 22k
Q005 BUFFER
Q005 2SC2412
7.6
7.3
7.9
R016 8200
C019 2200p B
R017
(SLV-715/UB 8200)
(SLV-715VP 7500)
7.6
8.9
R006 100
Q003 2SC2412
7.4
L002 22μH
R007 0
R004 1k
R008 2200
C008 27p
R005 1k
C009 180p
R101 0
7.6
Q101 2SC2412
8.6
7.4
R102 1k
Q101,003 EQUALIZER
L003 10μH
C010 47 16V
IF001
GND
1 RF AGC
2 IF IN
3 VCC (9V)
4 AFT UP
5 AFT DWN
6 AFT
7 —
8 —
9 2nd IF
10 1st AF
11 —
12 DET OUT
C103 0.022 B
(SLV-715UB 10k Mt)
R009 0
SLV-715/VP
C016 10 50V
SLV-715UB
R025 0
R024 0
SLV-715UB
RV001 10k
W1
SLV-715UB
(SLV-715UB)
(SLV-715/VP)
C013 47 16V
C011 47/16V
D104 1SS119
MPX001
1 GND
2 L/MAIN
3 R/SUB
4 F.MONO
5 STEREO
6 BILING
7 —
8 —
9 TA MUTE
10 —
11 —
12 L+R/MAIN
13 2nd IF
14 —
15 VCC (12V)
16 1st IF IN
17 GND
SLV-715/VP
R011 10k
R014 200
SLV-715/VP
R015 6800
R012 2200
SLV-715/VP
R013 6800
SLV-715/VP
L004
JW202
C017 0 50V
C018 10/50V
SLV-715/VP
CN002
SW 5V 1
+35V 2
SW 12V 3
SW 9V 4
GND (V) 5
TU VIDEO 6
GND (AU) 7
TU (L) 8
TU (R) 9
TU (L+R) 10
GND (V) 11
GND (V) 12
C015 10 50V
TO MA-62 BOARD CN552
(See Page 117)
R026 10k
Q004 DTC143TK
Q004 MUTE SWITCH
0.7
0
09
CN003 (BLK)
1 STD/NICAM
2 SW 5V
3 SW 12V
4 NC
5 2nd IF
6 GND
7 GND
8 NC
TO NM-1 BOARD CN002
(See Page 165)
SLV-715UB
CN004 (WHT)
1 BI
2 ST
3 NICAM DET
4 TA MUTE
5 WG R IN
6 WG R OUT
7 WG L IN
8 WG L OUT
TO NM-1 BOARD CN001
(See Page 165)

D SIGNAL		AUDIO SIGNAL
	Y/CHROMA/DATA	
	⇛	➡

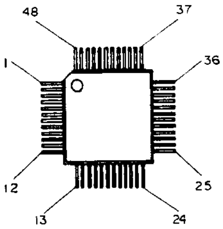
TUNER TUNER

4-3. SEMICONDUNTOR

AN3916



AN3972FC


48
37
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36
12
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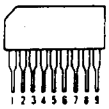
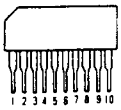
24

BA6138
LA7954
LVA519A
LVA522S



BA6238A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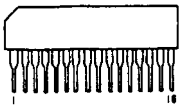
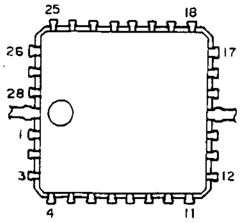
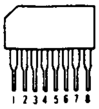
BA7077



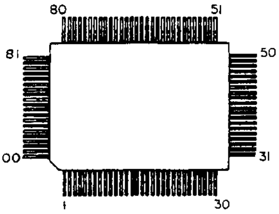
CAT35C202P
HA12115MP


25
18
26
17
28
1
3
12
4
11

CX20061
LA7016



CXP80624
MB89794B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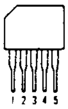
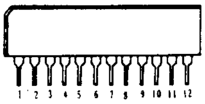
51
81
50
100
31
1
30

LA7213



LA7222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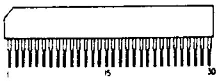
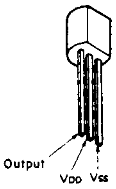
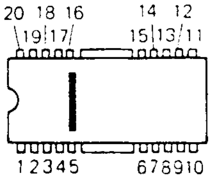
LA7297



RC78L05A
S-8053ALR
S-8053HNB


Output
VDD
VSS

TA8424F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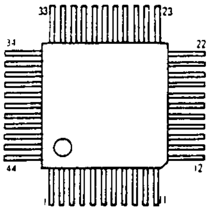
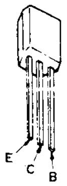
19 17
14 12
15 13 11
1 2 3 4 5
6 7 8 9 10

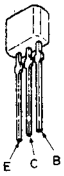
µPD75004G3


33
23
34
22
44
12
1

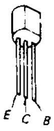
2SA1115
2SC1740
2SC2603
DTA114ES
DTA144ES
DTC114ES
DTA144ES



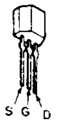
2SA1309
2SD1020TP
2SC3311



2SA933S



2SK381



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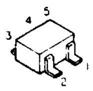

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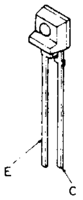
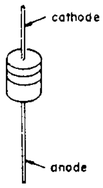
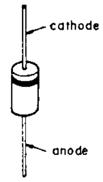


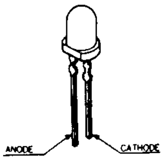
11ES2
1SS119
1SS133
ERA82
RD13ES
RD6.2ES
UZ-33BSB


cathode
anode

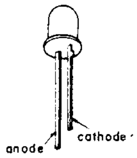
RD4.7EL
RD5.1EL
UZ-6.2BSB


cathode
anode

SLR-34DC3


ANODE
CATHODE

SLR-DC3
SLR-MC3
SLR-54VC3


anode
cathode

SECTION 5
EXPLODED VIEWS

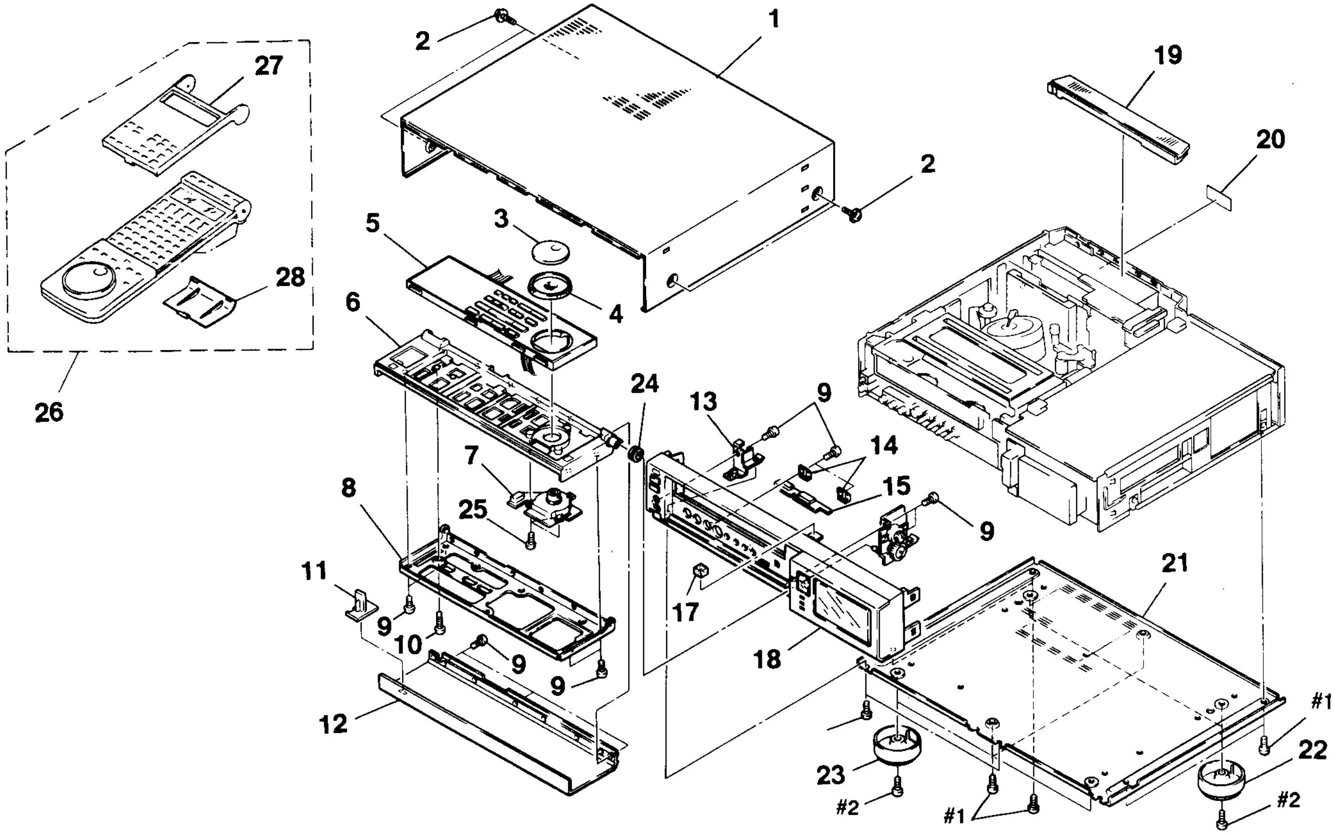
NOTE:

- -XX, -X mean standardized parts, so they may have some difference from the original one.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should [illegible]ated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.

Hardware (# mark) list is given in the last of this parts list.

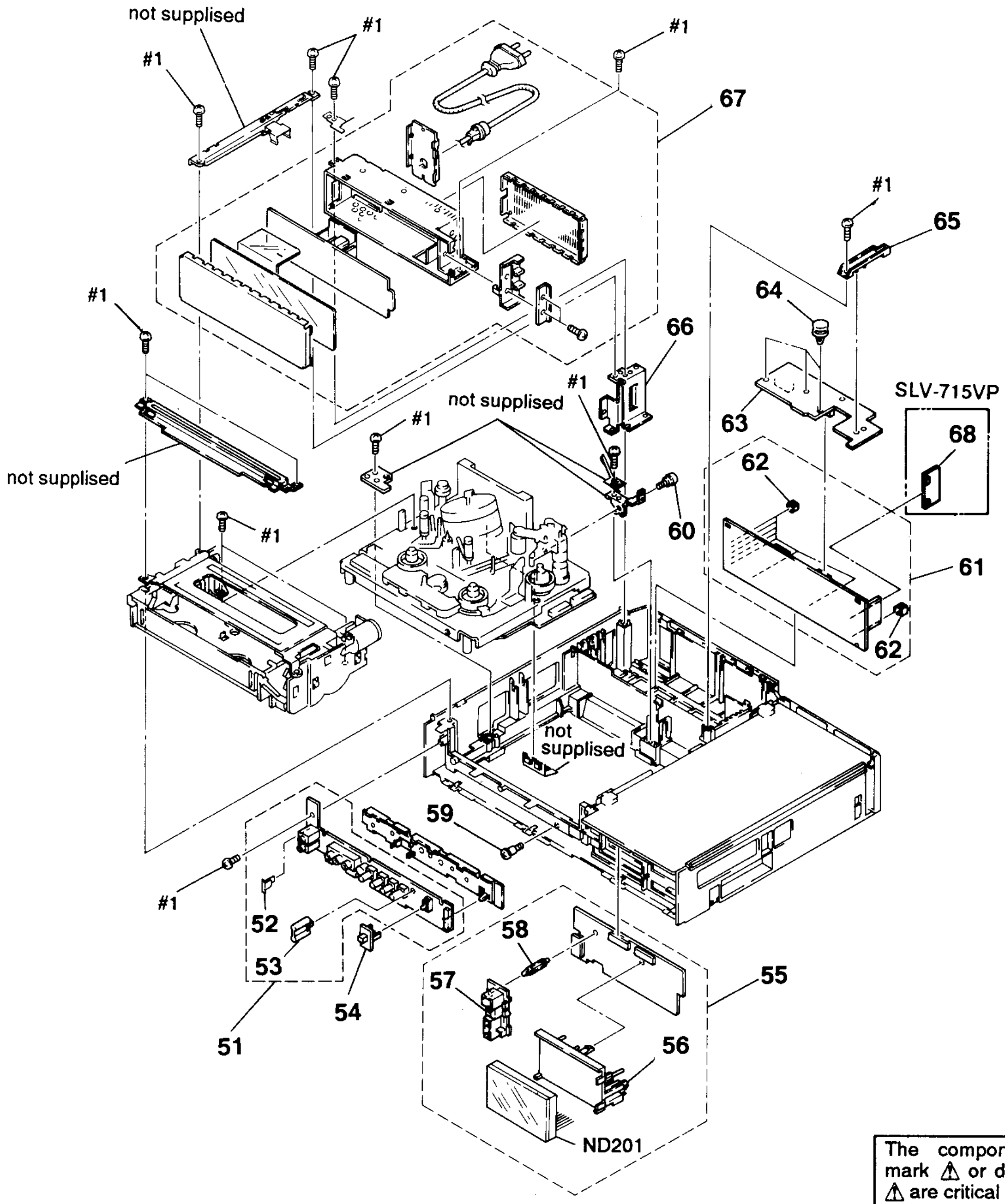
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

5-1. FRONT PANEL AND CABINET ASSEMBLIES



Ref. No.	Part No.	Description	Remark
1	3-743-670-51	COVER, UPPER	
2	3-710-901-21	SCREW (3X8), TAPPING	
3	3-744-018-11	DIAL, JOG	
4	3-744-019-21	RING, SHUTTLE	
5	1-466-346-31	SWITCH BLOCK, CONTROL	
6	X-3743-546-1	PLATE ASSY, ORNAMENTAL, DOOR	
7	* 1-635-216-11	JS-20 BOARD	
8	* 3-743-699-01	PLATE, FULCRUM, DOOR	
9	4-921-277-11	SCREW (B2.6X8), TAPPING, BIND	
10	4-921-277-21	SCREW (B2.6X12), TAPPING, BIND	
11	3-743-650-01	COVER, POWER LAMP	
12	X-3940-340-1	DOOR ASSY, FRONT (SLV-715)	
	X-3940-343-1	DOOR ASSY, FRONT (SLV-715VP)	
	X-3940-344-1	DOOR ASSY, FRONT (SLV-715UB)	
13	X-3743-536-1	PLATE (L) ASSY, FULCRUM	
14	* 3-743-640-11	RETAINER, PC BOARD	
15	* 1-635-218-21	TK-12 BOARD	
16	A-6759-519-A	PLATE (R) BLOCK ASSY, FULCRUM	
17	9-911-841-XX	CUSHION (B)	
18	X-3940-339-1	PANEL ASSY, FRONT (SLV-715/UB)	
	X-3940-342-1	PANEL ASSY, FRONT (SLV-715VP)	
19	3-743-644-11	COVER, POWER	
20	* 3-941-608-01	LABEL, MODEL NUMBER (SLV-715)	
	* 3-941-609-01	LABEL, MODEL NUMBER (SLV-715VP)	
	* 3-941-611-01	LABEL, MODEL NUMBER (SLV-715UB)	
21	3-743-671-01	PLATE, BOTTOM	
22	3-749-328-01	FOOT	
23	3-940-667-11	FOOT	
24	* 3-744-012-02	RING, GEAR	
25	3-744-068-01	SCREW (2.6), TAPPING	
26	1-465-751-11	REMOTE COMMANDER (RMT-V5D)	
27	3-749-148-11	COVER, TIMER	
28	3-744-080-00	COVER, BATTERY	

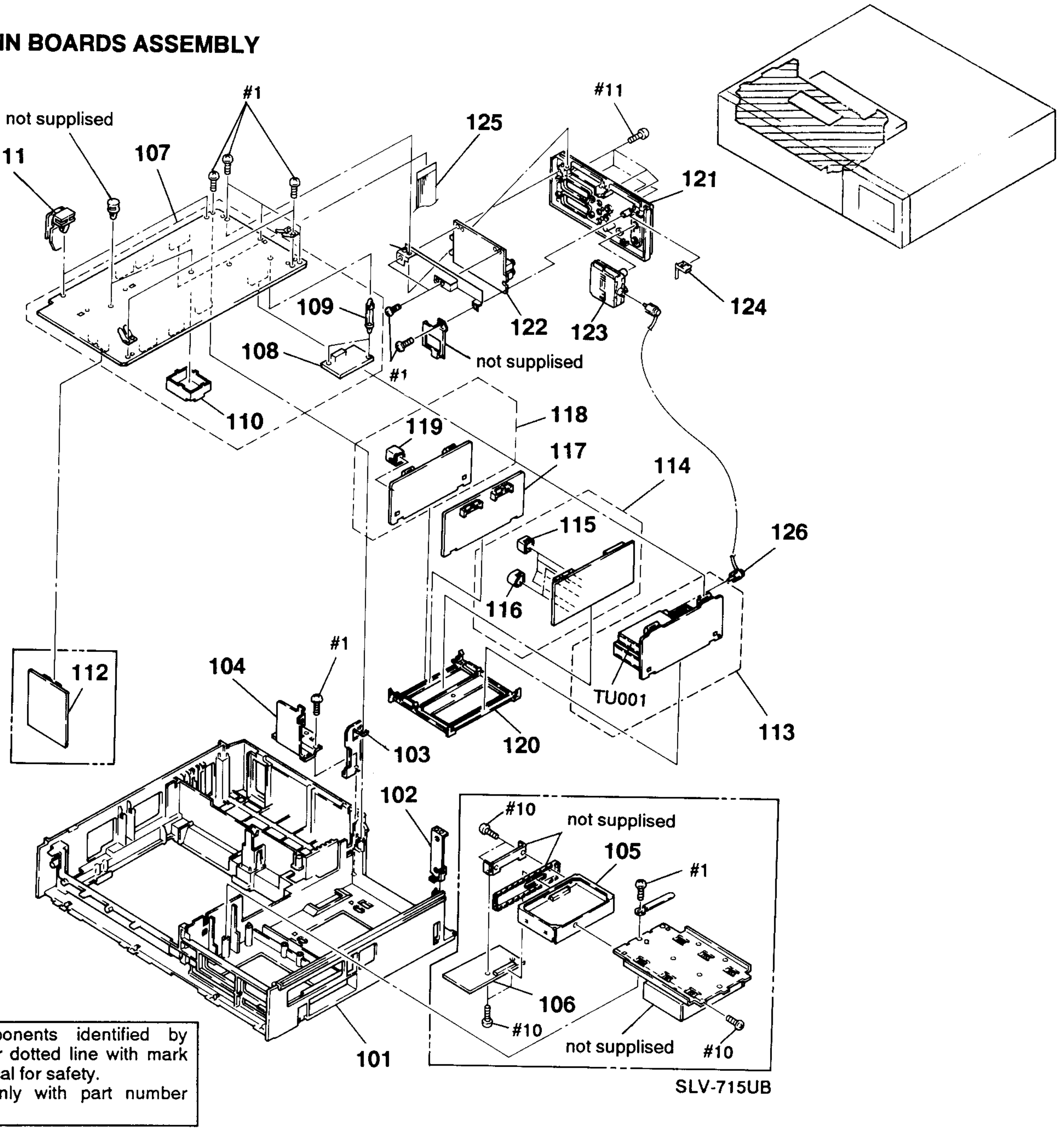
5-2. POWER SUPPLY BLOCK ASSEMBLY


not supplised
#1
#1
#1
67
#1
65
#1
64
66
#1
not supplised
#1
SLV-715VP
63
68
62
not supplised
60
#1
61
62
not
supplised
59
#1
52
58
53
55
57
54
51
56
ND201

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Ref. No.	Part No.	Description	Remark
51	A-6756-034-A	MF-101 BOARD, COMPLETE (SLV-715)	
	A-6756-043-A	MF-101 BOARD, COMPLETE (SLV-715VP)	
	A-6756-051-A	MF-101 BOARD, COMPLETE (SLV-715UB)	
52	* 3-749-306-01	PLATE GROUND, MF	
53	* 3-744-056-01	COVER, LED	
54	3-743-636-11	KNOB, SLIDE	
55	A-6756-033-A	MF-94 BOARD, COMPLETE (SLV-715)	
	A-6756-042-A	MF-94 BOARD, COMPLETE (SLV-715VP)	
	A-6756-052-A	MF-94 BOARD, COMPLETE (SLV-715UB)	
56	* 3-743-637-01	HOLDER, FL	
57	1-635-213-24	RM-41 BOARD	
58	* 3-682-419-51	HOLDER, PCB	
59	3-741-948-01	SCREW (3), SPECIAL (+) TAPPING	
60	3-736-055-01	SCREW (3X8), TAPPING	
61	A-6727-277-A	YC-65 BOARD, COMPLETE (SLV-715/UB)	
	A-6727-281-A	YC-65 BOARD, COMPLETE (SLV-715VP)	
62	3-729-971-01	COVER, VOLUME	
63	* 1-637-558-11	VI-97 BOARD	
64	3-682-057-21	SPACER (SMALL)	
65	* 3-743-641-01	RETAINER (RIGHT), YC	
66	* 3-743-643-01	BRACKET (LEFT), POWER	
67	⚠ 1-413-601-21	SWITCHING BLOCK (POWER BLOCK) (SLV-715)	
	⚠ 1-413-608-21	SWITCHING BLOCK (POWER BLOCK) (SLV-715VP)	
67	⚠ 1-413-609-21	SWITCHING BLOCK (POWER BLOCK) (SLV-715UB)	
68	A-6727-306-A	SD-4 BOARD, COMPLETE (SLV-715VP)	
ND201	1-519-633-11	INDICATION TUBE, FLUORESCENT	

5-3. MAIN BOARDS ASSEMBLY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#11
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108
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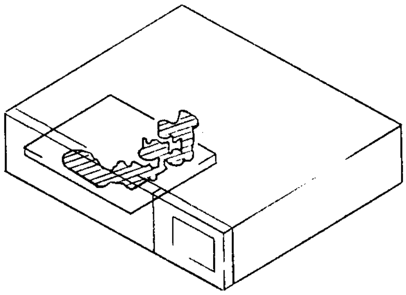
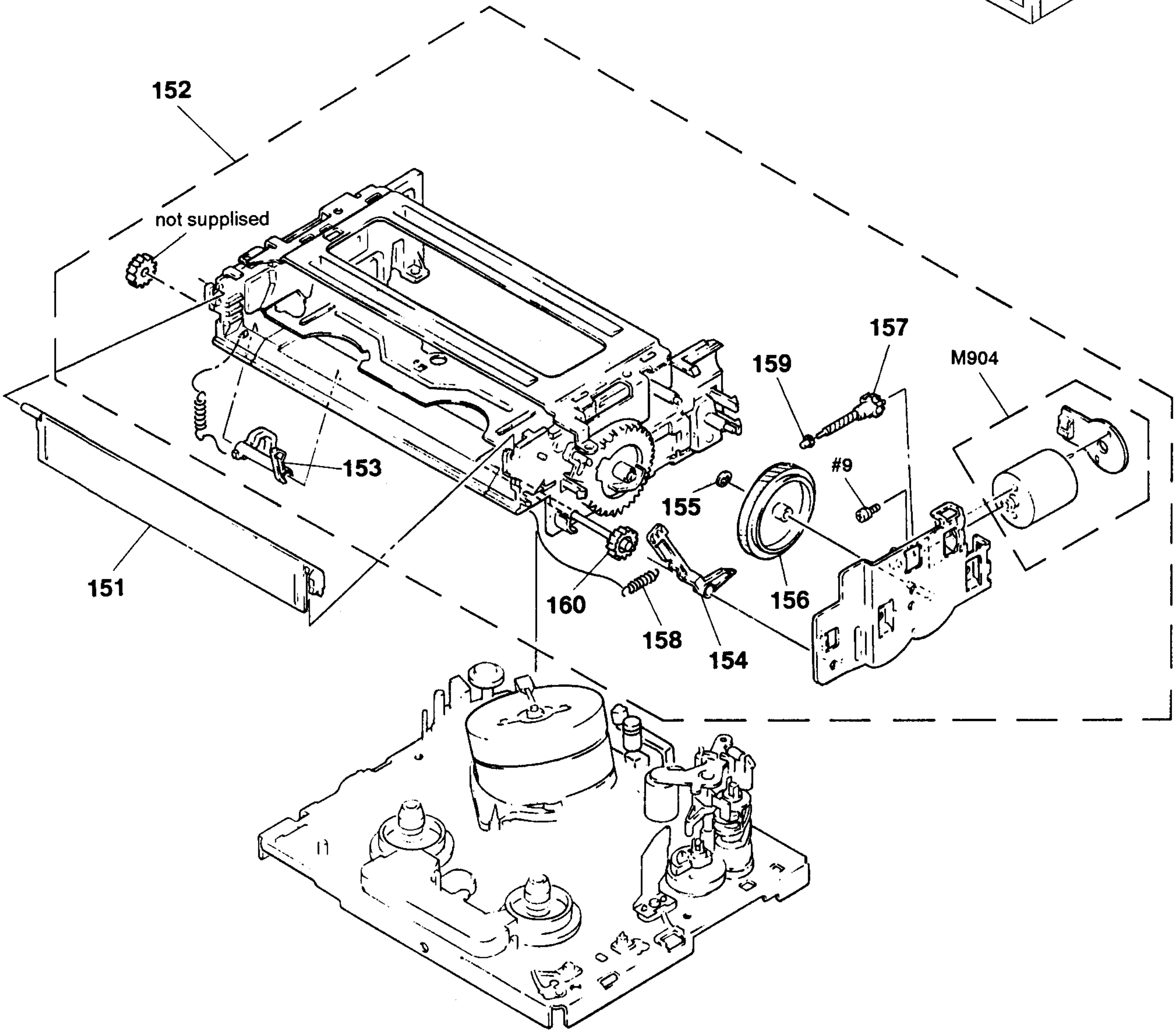
#1
110
118
119
117
114
115
126
116
112
#1
104
TU001
113
120
103
102
#10
not supplised
105
#1
106
#10
not supplised
#10
101
SLV-715UB

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Ref. No.	Part No.	Description	Remark
101	A-6771-254-A	FRAME BLOCK ASSY	
102	* 3-743-676-01	PLATE (RIGHT), GROUND, MA	
103	* 3-743-675-01	PLATE (LEFT), GROUND, MA	
104	* 3-743-642-01	BRACKET (RIGHT), POWER	
105	* A-6721-376-A	NA-7 BOARD, COMPLETE (SLV-715UB)	
106	* 1-632-333-11	NM-1 BOARD (SLV-715UB)	
107	A-6717-597-A	MA-62 BOARD, COMPLETE (SLV-715VP)	
	A-6717-600-A	MA-62 BOARD, COMPLETE (SLV-715/UB)	
108	* 1-635-225-11	SI-10 BOARD	
109	* 3-682-419-51	HOLDER, PCB	
110	* 3-743-679-01	CASE, SHIELD, AU	
111	* 3-743-678-01	HINGE, PC BOARD	
112	* 1-637-444-11	VP-24 BOARD (SLV-715VP)	
113	A-6721-369-A	TU-120 BOARD, COMPLETE (SLV-715)	
	A-6721-372-A	TU-120 BOARD, COMPLETE (SLV-715VP)	
113	A-6721-375-A	TU-120 BOARD, COMPLETE (SLV-715UB)	
114	A-6713-377-A	HF-9 BOARD, COMPLETE	
115	3-729-971-01	COVER, VOLUME	
116	3-738-216-01	COVER, VOLUME	
117	A-6727-278-A	PI-20 BOARD, COMPLETE	
118	A-6727-279-A	CG-10 BOARD, COMPLETE (SLV-715/UB)	
	A-6727-282-A	CG-10 BOARD, COMPLETE (SLV-715VP)	
119	* 3-738-015-11	COVER (DIA-6) CARBON VR	
120	* 3-743-673-01	HOLDER, PC BOARD	
121	3-940-827-01	TERMINAL BOARD (PAL)	
122	* A-6754-215-A	IO-40 BOARD, COMPLETE	
123	⚠ 1-466-328-31	MODULATOR, RF (RFU-2027) (SLV-715/VP)	
	⚠ 1-466-347-31	MODULATOR, RF (RFU-2028) (SLV-715UB)	
124	* 3-743-677-01	PLATE, GROUND, RF	
125	1-575-746-11	WIRE, FLAT TYPE (22 CORE) (MA BOARD TO VI BOARD)	
126	1-558-924-41	CABLE, PIN	
TU001	⚠ 1-465-260-11	TUNER, ET (BTP-2C401) (SLV-715/VP)	
TU001	⚠ 1-465-262-11	TUNER, ET (SLV-715UB)	

5-4. FL CASSETTE COMPARTMENT ASSEMBLY

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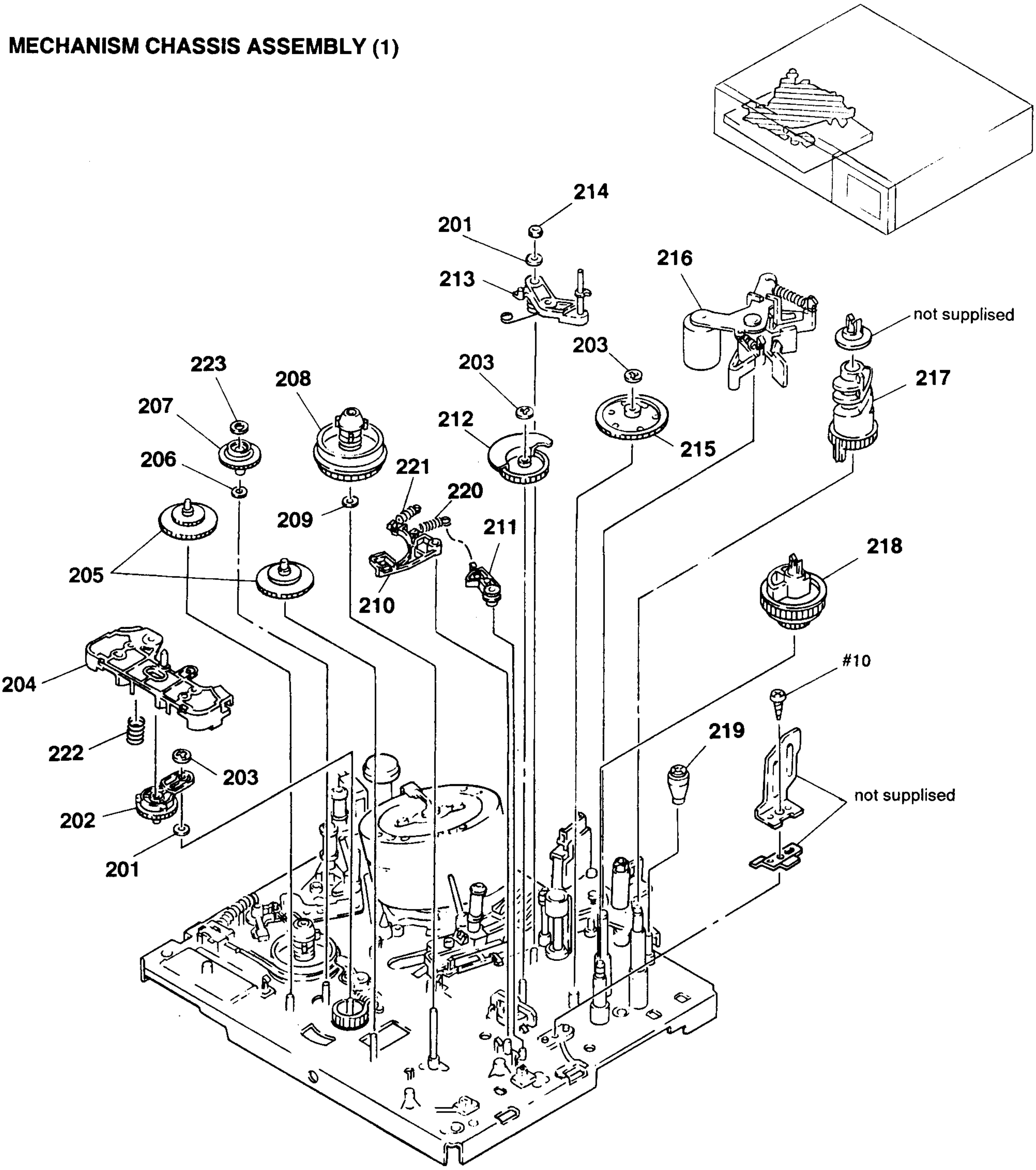
M904

Ref. No.	Part No.	Description	Remark
151	X-3940-341-1	DOOR ASSY, FL	
152	A-6751-426-A	FL BLOCK ASSY (F3)	
153	3-736-163-01	LEVER, ERASING PROTECTION	
154	3-736-167-01	ARM, DOOR SWITCHING	
155	3-696-510-01	WASHER (3), STOPPER	
156	3-736-164-01	WHEEL (FL), WORM	
157	3-736-100-01	GEAR (FL), WORM	
158	3-738-285-01	SPRING, TENSION	
159	3-716-144-02	RETAINER, WORM	
160	X-3727-775-2	GEAR (RIGHT) ASSY, MIDWAY	
M904	X-3727-784-1	MOTOR ASSY (LOADING MOTOR)	

5-5. MECHANISM CHASSIS ASSEMBLY (1)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not supplised
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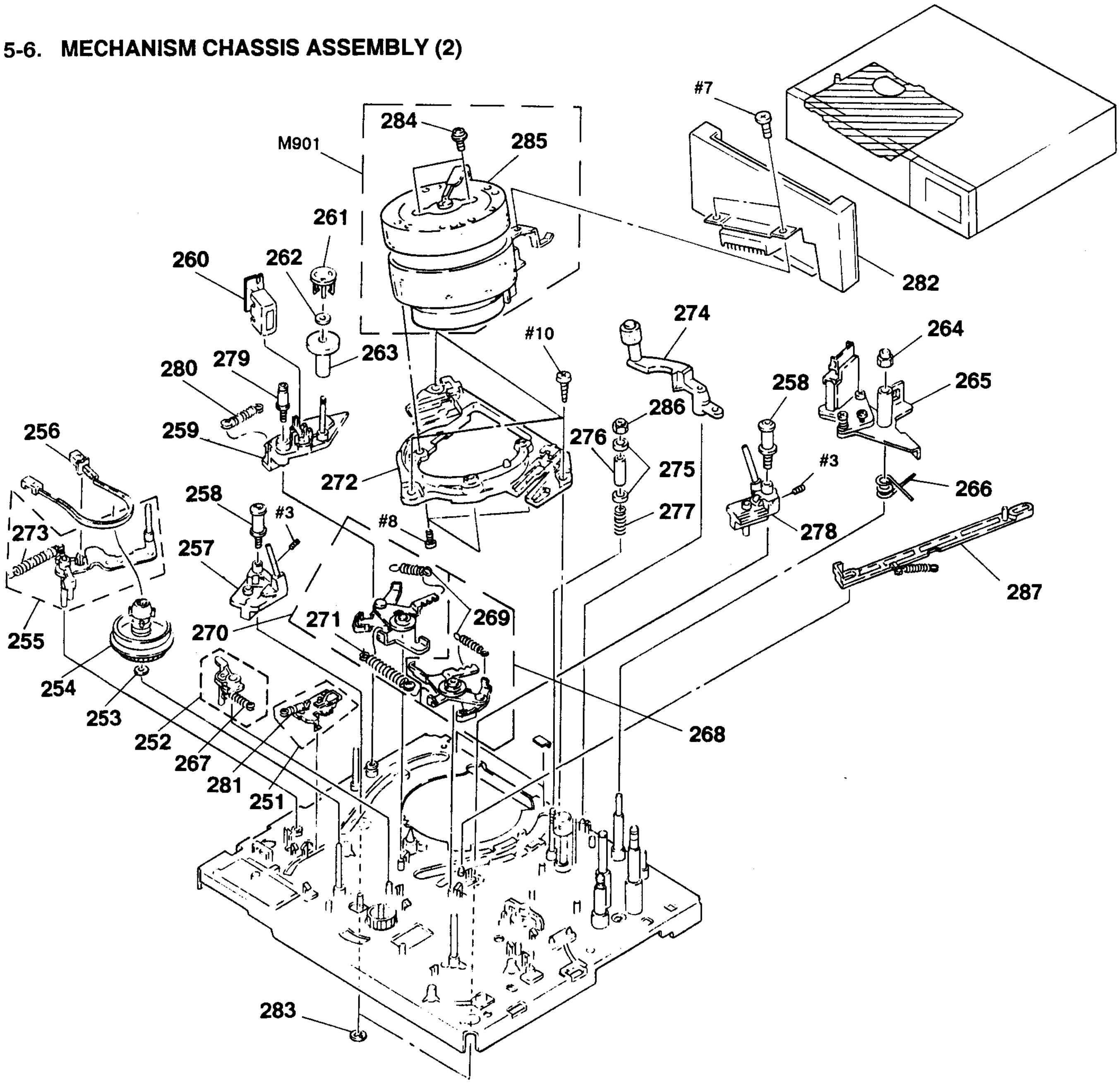
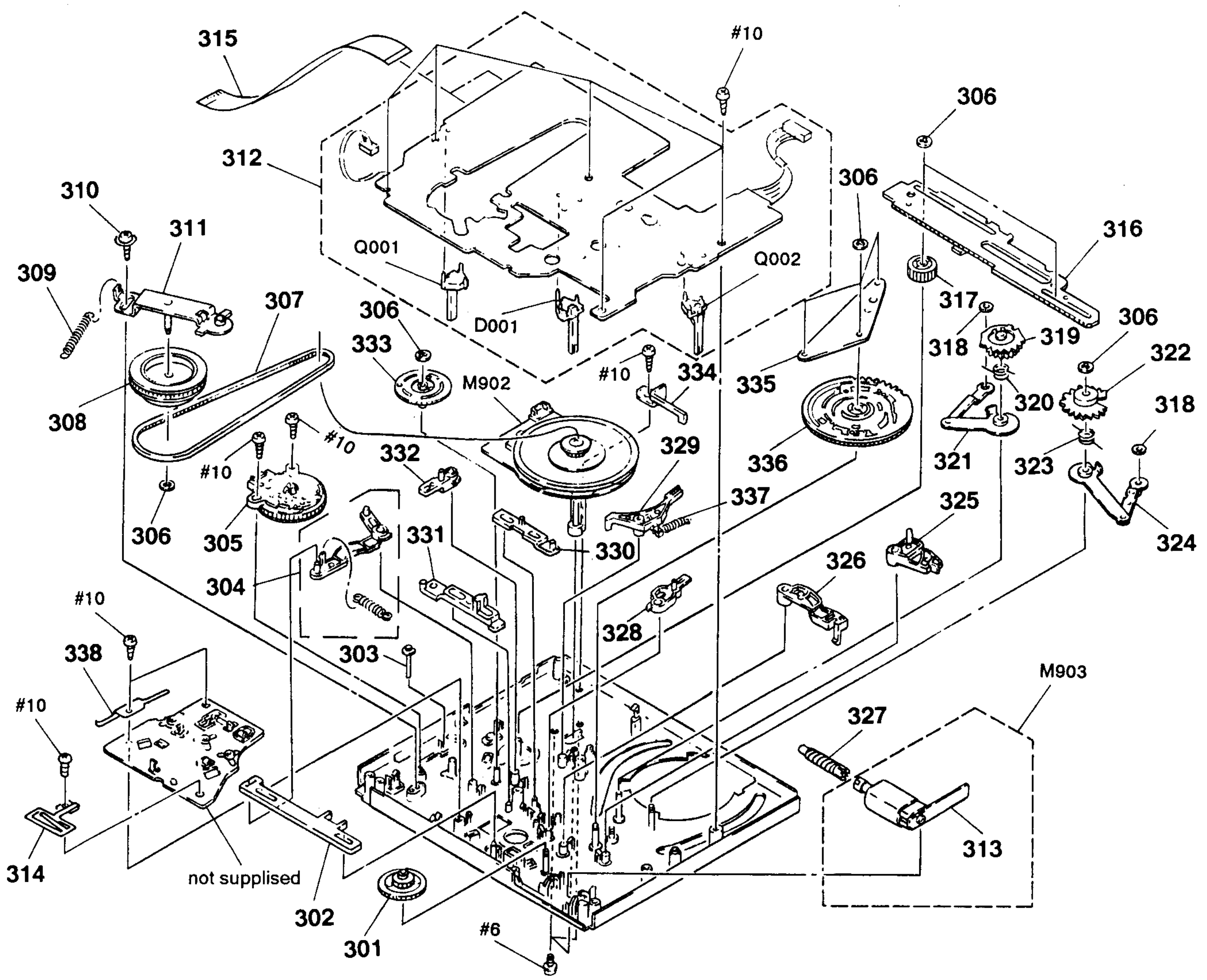
Ref. No.	Part No.	Description	Remark
201	3-701-438-11	WASHER, 2.5	
202	X-3727-776-1	ARM ASSY, PENDULUM	
203	3-669-595-00	WASHER (2), STOPPER	
204	3-736-172-02	RELEASE, LOCK, REEL	
205	X-3727-795-1	GEAR ASSY, RELAY	
206	3-736-074-01	RETAINER (SMALL), THRUST	
207	3-736-037-01	GEAR, REW	
208	X-3727-798-1	TABLE ASSY, REEL	
209	3-738-212-21	RETAINER, THRUST, REEL TABLE	
210	X-3727-764-1	BRAKE ASSY, T SOFT	
211	3-736-105-01	ARM, REV BRAKE	
212	3-736-143-01	GEAR, RVS CAM	
213	X-3729-911-1	ARM ASSY, RVS	
214	3-736-740-01	NUT (M2X0.25), NYLON	
215	3-736-116-01	GEAR, COMMUNICATION	
216	X-3727-770-1	PINCH ROLLER BLOCK ASSY	
217	3-736-136-01	CAM, ELEVATOR	
218	3-943-700-01	GEAR (LO), PRESS CAM	
219	3-738-250-01	SCREW, AC ADJUSTMENT	
220	3-743-608-02	SPRING (REV BRAKE), TENSION	
221	3-736-024-01	SPRING, TENSION	
222	3-736-020-11	SPRING, COMPRESSION	
223	3-736-069-01	RETAINER, SPRING	

5-6. MECHANISM CHASSIS ASSEMBLY (2)



Ref. No.	Part No.	Description	Remark
251	A-6759-451-A	TAKE-UP BLOCK ASSY, S	
252	X-3727-773-1	ARM ASSY, S SOFT BRAKE	
253	3-738-212-21	RETAINER, THRUST, REEL TABLE	
254	X-3729-935-3	TABLE ASSY, REEL, SUPPLY	
255	X-3727-772-1	ARM ASSY, TENSION REGULATOR	
256	X-3727-797-1	BAND ASSY, TENSION REGULATOR	
257	X-3727-786-1	SHUTTLE (LEFT) ASSY	
258	X-3733-301-1	ROLLER ASSY, GUIDE	
259	X-3727-767-1	BASE ASSY, STABILIZER	
260	1-543-647-11	HEAD, FE (FULL ERASE HEAD)	
261	3-736-082-01	RETAINER, TS THRUST	
262	3-741-925-01	RING, RETAINING	
263	X-3727-771-1	STABLILIZER ASSY, TAPE	
264	3-942-867-01	NUT, AC HEIGHT ADJUSTMENT	
265	A-6761-129-A	HEAD BLOCK ASSY, ACE	
266	3-736-042-01	SPRING, TORSION	
267	3-736-047-01	SPRING (S SOFT), TENSION	
268	X-3729-926-1	BRAKE ASSY (2), T	
269	3-738-220-01	SPRING (MAIN BRAKE 2), TENSION	
270	X-3729-925-1	BRAKE ASSY (2), S	
271	3-738-221-01	SPRING (MAIN BRAKE 1), TENSION	
272	X-3727-791-2	BASE ASSY, DRUM	
273	3-733-389-11	SPRING, TENSION	
274	A-6747-267-A	ARM BLOCK ASSY (S), C ROLLER	
275	3-736-733-01	FLANGE, 7 GUIDE	
276	3-736-730-01	SLEEVE, #7 GUIDE	
277	3-749-099-01	SPRING (#7 GUIDE),COMPRESSION	
278	X-3727-787-1	SHUTTLE (RIGHT) ASSY	
279	X-3727-788-1	ROLLER ASSY, GUIDE, #2	
280	3-736-745-01	SPRING	
281	3-738-284-01	SPRING, TENSION	
282	A-6727-137-A	RP-63 BOARD, COMPLETE	
283	3-736-073-01	SLIDER, POLYETHYLENE	
284	2-643-205-01	SCREW (PSW) 3X8	
285	1-550-536-11	DRUM ASSY, ROTARY UPPER (DZR-17-R)	
286	3-942-866-01	NUT (M3) (3X0.5), NYLON	
287	* X-3743-517-1	LEVER ASSY(S),RELEASE,C ROLLER	
M901	1-550-535-11	DRUM ASSY (DZH-17A-R)	

5-7. MECHANISM CHASSIS ASSEMBLY (3)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Q001
Q002
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D001
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M902
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M903
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#6

Ref. No.	Part No.	Description	Remark
301	3-736-015-01	WHEEL (CAM), WORM	
302	3-736-158-01	PLATE, SLIDE, PENDULUM	
303	3-736-091-01	PIN, SWITCH	
304	X-3729-924-1	ARM ASSY, PENDULUM FUNCTION	
305	1-571-920-11	SWITCH, ROTARY	
306	3-669-595-00	WASHER (2), STOPPER	
307	3-736-013-01	BELT, TIMING	
308	X-3727-782-1	PULLEY ASSY	
309	3-736-089-01	SPRING, TENSION	
310	3-733-386-01	SCREW (3X8), WASHER	
311	X-3727-761-1	ARM ASSY, ADJUSTMENT	
312	A-6754-228-A	MOUNTED PCB (ALS), MD-49	
313	* 1-633-460-11	CA-41 BOARD (ON CAM MOTOR)	
314	* 3-744-024-01	PLATE, GROUND, MD	
315	1-575-745-11	WIRE, FLAT TYPE (19 CORE) (MA BOARD TO MD BOARD)	
316	3-736-177-01	PLATE, SLIDE, MODE	
317	3-733-394-01	GEAR, RVS RELAY	
318	3-736-073-01	SLIDER, POLYETHYLENE	
319	3-736-148-01	GEAR (RIGHT), THREADING	
320	3-736-092-01	SPRING (RIGHT), TORSION	
321	X-3727-777-1	ARM (RIGHT) ASSY, THREADING	
322	3-736-147-01	GEAR (LEFT), THREADING	
323	3-736-040-01	SPRING (LEFT), TORSION	
324	X-3727-778-1	ARM (LEFT) ASSY, THREADING	
325	3-736-142-01	ARM, TENSION REGULATOR FUNCTION	
326	3-736-140-01	ARM, S TAKE-UP	
327	3-733-395-01	GEAR (CAM), WORM	
328	3-733-397-01	ARM, BRAKE FUNCTION	
329	X-3727-769-1	BRAKE ASSY, CAP	
330	3-733-398-01	PLATE, SLIDE, BRAKE	
331	3-736-103-01	PLATE, SLIDE, LIMITER	
332	3-736-016-01	ARM, LIMITER FUNCTION	
333	3-736-170-01	GEAR, RKB CAM	
334	3-736-744-01	RETAINER, ROTOR	
335	3-733-396-01	HOLDER, CAM GEAR	
336	3-736-176-01	GEAR, CAM	
337	3-738-237-01	SPRING (CAP BRAKE), TENSION	
338	3-741-950-01	SPRING (AT), LEAF, SC GROUND	
D001	8-719-985-00	DIODE GL451VS1 (LED)	
M902	8-835-395-01	MOTOR, DC U-26G (CAPSTAN MOTOR)	
M903	X-3733-302-1	MOTOR ASSY (CAM MOTOR)	
Q001	8-729-926-31	PHOTO TRANSISTOR PT484F1S	
Q002	8-729-926-31	PHOTO TRANSISTOR PT484F1S	

SECTION 6
ELECTRICAL PARTS LIST

NOTE:

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

When indicating parts by reference number, please include the board name.

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms
  METAL: Metal-film resistor
  METAL OXIDE: Metal Oxide-film resistor
  F : nonflammable
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u: μ, for example:
  uA...: μA..., uPA...: μPA...,
  uPB...: μPB..., uPC...: μPC...,
  uPD...: μPD...
- CAPACITORS
  uF : μF
- COILS
  uH : μH

Ref. No.	Part No.	Description	Remark
	* A-6727-279-A	CG-10 BOARD, COMPLETE (SLV-715/UB)	
		*********************	
	* A-6727-282-A	CG-10 BOARD, COMPLETE (SLV-715VP)	
		*********************	
		(Ref.No 3,000 Series)	
	* 3-738-015-01	COVER, (DIA. 6) CARBON VR	
		< CAPACITOR >	
C685	1-124-126-00	ELECT 47uF 20% 10V	
C686	1-162-306-11	CERAMIC 0.01uF 20% 16V	
C687	1-102-980-00	CERAMIC 270PF 5% 50V	
C688	1-102-980-00	CERAMIC 270PF 5% 50V	
C689	1-164-083-11	CERAMIC 680PF 10% 50V	
C690	1-130-487-00	MYLAR 0.022uF 5% 50V	
C691	1-124-903-11	ELECT 1uF 20% 50V	
C692	1-162-306-11	CERAMIC 0.01uF 20% 16V	
C693	1-162-291-31	CERAMIC 560PF 10% 50V	
C801	1-161-061-11	CERAMIC 0.068uF 10% 50V	
C802	1-124-287-00	ELECT 10uF 20% 10V	
C840	1-162-211-11	CERAMIC 33PF 5% 50V	(SLV-715VP)
C852	1-162-209-31	CERAMIC 27PF 5% 50V	
C853	1-162-306-11	CERAMIC 0.01uF 20% 16V	
C854	1-124-584-00	ELECT 100uF 20% 10V	
C855	1-162-199-31	CERAMIC 10PF 5% 50V	
C856	1-162-201-31	CERAMIC 12PF 5% 50V	
C857	1-162-203-31	CERAMIC 15PF 5% 50V	
C858	1-162-205-31	CERAMIC 18PF 5% 50V	
C863	1-124-903-11	ELECT 1uF 20% 50V	
C864	1-162-217-31	CERAMIC 56PF 5% 50V	
C865	1-162-306-11	CERAMIC 0.01uF 20% 16V	
C866	1-162-306-11	CERAMIC 0.01uF 20% 16V	
C868	1-162-306-11	CERAMIC 0.01uF 20% 16V	
C876	1-162-306-11	CERAMIC 0.01uF 20% 16V	
C890	1-162-306-11	CERAMIC 0.01uF 20% 16V	
C895	1-124-126-00	ELECT 47uF 20% 10V	
C901	1-162-294-11	CERAMIC 1000PF 10% 50V	(SLV-715VP)
		< CONNECTOR >	
CN585	1-568-073-11	CONNECTOR (RECEPTALE) 8P	
CN586	1-568-073-11	CONNECTOR (RECEPTALE) 8P	
		< TRIMMER >	
CV851	1-141-245-00	CAP, TRIMMER 30PF	
		< DIODE >	
D851	8-719-911-19	DIODE 1SS119	
D852	8-719-911-19	DIODE 1SS119	
		< IC >	
IC685	8-759-996-03	IC LVA519S	
IC851	8-759-634-22	IC M50554-182SP	
		< INDUCTOR >	
JW026	1-410-397-21	FERRITE BEAD INDUCTOR	
JW027	1-410-324-11	INDUCTOR 4.7UH	
		< COIL >	
L840	1-410-515-11	INDUCTOR 300uH	(SLV-715VP)
L851	⚠ 1-410-521-11	INDUCTOR 100uH	
L852	1-410-521-11	INDUCTOR 100uH	
L853	1-410-521-11	INDUCTOR 100uH	
L856	1-410-423-11	INDUCTOR 22uH	
L861	1-410-521-11	INDUCTOR 100uH	
L862	1-410-521-11	INDUCTOR 100uH	

Ref. No.	Part No.	Description	Remark
		< TRANSISTOR >	
Q801	8-729-900-61	TRANSISTOR DTA114ES	
Q802	8-729-920-70	TRANSISTOR 2SC1740S-QR	
Q803	8-729-900-89	TRANSISTOR DTC144ES	
Q804	8-729-900-65	TRANSISTOR DTA144ES	
Q840	8-729-900-61	TRANSISTOR DTA114ES	(SLV-715VP)
Q853	8-729-920-70	TRANSISTOR 2SC1740S-QR	
Q855	8-729-423-37	TRANSISTOR 2SC3311A-QRS	(SLV-715VP)
Q856	8-729-920-68	TRANSISTOR 2SA933S-QR	
Q857	8-729-920-70	TRANSISTOR 2SC1740S-QR	
Q901	8-729-900-89	TRANSISTOR DTC144ES	(SLV-715VP)
		< RESISTOR >	
R685	1-249-429-11	CARBON 10K 5% 1/4W	
R686	1-249-429-11	CARBON 10K 5% 1/4W	
R687	1-249-422-11	CARBON 2.7K 5% 1/4W	
R688	1-249-434-11	CARBON 27K 5% 1/4W	
R689	1-249-430-11	CARBON 12K 5% 1/4W	
R690	1-247-903-00	CARBON 1M 5% 1/4W	
R691	1-249-414-11	CARBON 560 5% 1/4W	
R801	1-249-425-11	CARBON 4.7K 5% 1/4W	
R802	1-249-437-11	CARBON 47K 5% 1/4W	
R803	1-249-425-11	CARBON 4.7K 5% 1/4W	
R804	1-249-441-11	CARBON 100K 5% 1/4W	
R840	1-249-429-11	CARBON 10K 5% 1/4W	(SLV-715VP)
R841	1-249-429-11	CARBON 10K 5% 1/4W	(SLV-715VP)
R851	1-249-423-11	CARBON 3.3K 5% 1/4W	
R852	1-249-424-11	CARBON 3.9K 5% 1/4W	
R855	1-249-421-11	CARBON 2.2K 5% 1/4W	
R856	1-249-416-11	CARBON 820 5% 1/4W	
R857	1-249-422-11	CARBON 2.7K 5% 1/4W	
R858	1-249-429-11	CARBON 10K 5% 1/4W	
R859	1-249-423-11	CARBON 3.3K 5% 1/4W	
R860	1-249-421-11	CARBON 2.2K 5% 1/4W	
R866	1-249-413-11	CARBON 470 5% 1/4W	
R867	1-249-417-11	CARBON 1K 5% 1/4W	
R868	1-249-424-11	CARBON 3.9K 5% 1/4W	
R870	1-249-413-11	CARBON 470 5% 1/4W	
R873	1-249-416-11	CARBON 820 5% 1/4W	
R877	1-249-435-11	CARBON 33K 5% 1/4W	
R878	1-249-426-11	CARBON 5.6K 5% 1/4W	
R879	1-249-413-11	CARBON 470 5% 1/4W	
R890	1-249-441-11	CARBON 100K 5% 1/4W	
R901	1-249-417-11	CARBON 1k 5% 1/4W	(SLV-715VP)
R902	1-249-406-11	CARBON 120 5% 1/4W	
R903	1-249-413-11	CARBON 470 5% 1/4W	
R904	1-249-429-11	CARBON 10K 5% 1/4W	
R905	1-249-429-11	CARBON 10K 5% 1/4W	

Ref. No.	Part No.	Description	Remark
		< VARIABLE RESISTOR >	
RV685	1-238-015-11	RES, ADJ, CARBON 4.7K	
		< CRYSTAL >	
X851	1-577-289-11	VIBRATOR, CRYSTAL (17.7MHz)	

****

* A-6713-377-A HF-9 BOARD, COMPLETE

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(Ref. No 7,000 Series)

Ref. No.	Part No.	Description	Remark
		< CAPACITOR >	
C001	1-124-239-00	ELECT 6.9uF 20% 10V	
C002	1-130-487-00	MYLAR 0.022uF 5% 50V	
C003	1-123-369-00	ELECT 4.7uF 20% 25V	
C004	1-130-475-00	MYLAR 0.0022uF 5% 50V	
C005	1-124-120-11	ELECT 220uF 20% 25V	
C006	1-124-907-11	ELECT 10uF 20% 50V	
C007	1-130-483-00	MYLAR 0.01uF 5% 50V	
C009	1-123-381-00	ELECT 2.2uF 20% 100V	
C011	1-123-356-00	ELECT 10uF 20% 16V	
C012	1-123-356-00	ELECT 10uF 20% 16V	
C013	1-126-101-11	ELECT 100uF 20% 16V	
C014	1-126-157-11	ELECT 10uF 20% 16V	
C015	1-126-157-11	ELECT 10uF 20% 16V	
C016	1-124-903-11	ELECT 1uF 20% 50V	
C017	1-124-257-00	ELECT 2.2uF 20% 50V	
C018	1-126-101-11	ELECT 100uF 20% 16V	
C019	1-123-356-00	ELECT 10uF 20% 16V	
C020	1-123-356-00	ELECT 10uF 20% 16V	
C022	1-123-381-00	ELECT 2.2uF 20% 100V	
C024	1-130-483-00	MYLAR 0.01uF 5% 50V	
C025	1-124-907-11	ELECT 10uF 20% 50V	
C026	1-124-120-11	ELECT 220uF 20% 25V	
C027	1-130-475-00	MYLAR 0.0022uF 5% 50V	
C028	1-123-369-00	ELECT 4.7uF 20% 25V	
C029	1-130-487-00	MYLAR 0.022uF 5% 50V	
C030	1-124-239-00	ELECT 6.9uF 20% 10V	
C031	1-126-163-11	ELECT 4.7uF 20% 50V	
C032	1-126-301-11	ELECT 1uF 20% 50V	
C033	1-123-380-00	ELECT 1uF 20% 50V	
C034	1-130-471-00	MYLAR 0.001uF 5% 50V	
C035	1-164-232-11	CERAMIC CHIP 0.01uF 50V	
C036	1-123-369-00	ELECT 4.7uF 20% 25V	
C037	1-123-369-00	ELECT 4.7uF 20% 25V	
C038	1-164-232-11	CERAMIC CHIP 0.01uF 50V	
C041	1-164-232-11	CERAMIC CHIP 0.01uF 50V	

Ref. No.	Part No.	Description			Remark
C042	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C043	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C044	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C045	1-130-493-00	MYLAR	0.068uF	5%	50V
C050	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C051	1-130-483-00	MYLAR	0.01uF	5%	50V
C052	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C053	1-124-122-11	ELECT	100uF	20%	50V
C054	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C055	1-123-369-00	ELECT	4.7uF	20%	25V
C056	1-123-369-00	ELECT	4.7uF	20%	25V
C057	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C058	1-130-471-00	MYLAR	0.001uF	5%	50V
C059	1-123-380-00	ELECT	1uF	20%	50V
C060	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C061	1-126-101-11	ELECT	100uF	20%	16V
C065	1-163-038-00	CERAMIC CHIP	0.1uF		25V
		< CONNECTOR >			
CN001	* 1-563-258-11	SOCKET, CONNECTOR 15P			
CN002	* 1-563-258-11	SOCKET, CONNECTOR 15P			
		< DIODE >			
D001	8-719-911-19	DIODE	1SS119		
D002	8-719-911-19	DIODE	1SS119		
D003	8-719-104-34	DIODE	1S2835		
		< FILTER >			
FL001	1-236-569-11	BPF (1.7MHz)			
FL002	1-236-570-11	BPF (1.3MHz)			
		< IC >			
IC001	8-759-420-18	IC	AN3972FC		
IC002	8-759-420-15	IC	AN3932S		
IC003	8-759-982-21	IC	RC78L05A		
IC004	8-759-924-46	IC	BA4560F		
IC005	8-759-946-44	IC	TK15120M		
IC006	8-759-946-44	IC	TK15120M		
		< RESISTOR >			
R001	1-249-417-11	CARBON	1K	5%	1/4W
R002	1-216-075-00	METAL CHIP	12K	5%	1/10W
R003	1-216-049-00	METAL CHIP	1K	5%	1/10W
R004	1-214-723-00	METAL	560	1%	1/4W
R005	1-216-047-00	METAL CHIP	820	5%	1/10W
R006	1-216-113-00	METAL CHIP	470K	5%	1/10W
R007	1-216-097-00	METAL CHIP	100K	5%	1/10W
R008	1-216-069-00	METAL CHIP	6.8K	5%	1/10W

Ref. No.	Part No.	Description			Remark
R009	1-216-295-00	METAL CHIP	0	5%	1/10W
R011	1-216-097-00	METAL CHIP	100K	5%	1/10W
R012	1-216-097-00	METAL CHIP	100K	5%	1/10W
R013	1-216-097-00	METAL CHIP	100K	5%	1/10W
R014	1-216-047-00	METAL CHIP	820	5%	1/10W
R015	1-214-723-00	METAL	560	1%	1/4W
R016	1-216-075-00	METAL CHIP	12K	5%	1/10W
R017	1-216-049-00	METAL CHIP	1K	5%	1/10W
R018	1-249-417-11	CARBON	1K	5%	1/4W
R019	1-216-043-00	METAL CHIP	560	5%	1/10W
R020	1-216-073-00	METAL CHIP	10K	5%	1/10W
R021	1-216-051-00	METAL CHIP	1.2K	5%	1/10W
R022	1-216-093-00	METAL CHIP	68K	5%	1/10W
R023	1-216-051-00	METAL CHIP	1.2K	5%	1/10W
R024	1-216-051-00	METAL CHIP	1.2K	5%	1/10W
R025	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R026	1-216-083-00	METAL CHIP	27K	5%	1/10W
R027	1-216-051-00	METAL CHIP	1.2K	5%	1/10W
R028	1-216-076-00	METAL GLAZE	13K	5%	1/10W
R029	1-216-059-00	METAL CHIP	2.7K	5%	1/10W
R032	1-216-073-00	METAL CHIP	10K	5%	1/10W
R033	1-216-049-00	METAL CHIP	1K	5%	1/10W
R034	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R035	1-249-427-11	CARBON	6.8K	5%	1/4W
R036	1-249-427-11	CARBON	6.8K	5%	1/4W
R037	1-216-085-00	METAL CHIP	33K	5%	1/10W
R041	1-216-097-00	METAL CHIP	100K	5%	1/10W
R042	1-249-428-11	CARBON	8.2K	5%	1/4W
R043	1-249-428-11	CARBON	8.2K	5%	1/4W
R044	1-249-430-11	CARBON	12K	5%	1/4W
R045	1-249-430-11	CARBON	12K	5%	1/4W
R048	1-249-441-11	CARBON	100K	5%	1/4W
R049	1-249-441-11	CARBON	100K	5%	1/4W
R068	1-216-083-00	METAL CHIP	27K	5%	1/10W
R201	1-216-295-00	METAL CHIP	0	5%	1/10W
R202	1-216-295-00	METAL CHIP	0	5%	1/10W
R203	1-216-295-00	METAL CHIP	0	5%	1/10W
R301	1-216-296-00	METAL CHIP	0	5%	1/8W
R302	1-216-296-00	METAL CHIP	0	5%	1/8W
R303	1-216-296-00	METAL CHIP	0	5%	1/8W
		< VARIABLE RESISTOR >			
RV002	1-230-522-11	RES, ADJ, METAL 4.7K			
RV003	1-238-167-11	RES, ADJ, CARBON 22K			
RV004	1-238-167-11	RES, ADJ, CARBON 22K			
RV005	1-230-498-11	RES, ADJ, CARBON 47K			
RV006	1-230-498-11	RES, ADJ, CARBON 47K			
RV007	1-238-167-11	RES, ADJ, CARBON 22K			

Ref. No.	Part No.	Description	Remark
RV008	1-230-522-11	RES, ADJ, METAL 4.7K	
RV009	1-238-167-11	RES, ADJ, CARBON 22K	

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* A-6756-101-A IO-40 BOARD, COMPLETE
****
(Ref.No 8,000 Series)

< CAPACITOR >

Ref. No.	Part No.	Description	Remark
C002	1-163-117-00	CERAMIC CHIP 100PF 5% 50V	
C004	1-163-117-00	CERAMIC CHIP 100PF 5% 50V	
C006	1-163-117-00	CERAMIC CHIP 100PF 5% 50V	
C008	1-163-117-00	CERAMIC CHIP 100PF 5% 50V	
C010	1-163-133-00	CERAMIC CHIP 470PF 5% 50V	
C012	1-163-133-00	CERAMIC CHIP 470PF 5% 50V	
C013	1-164-232-11	CERAMIC CHIP 0.01uF 50V	
C014	1-164-232-11	CERAMIC CHIP 0.01uF 50V	
C015	1-163-833-00	CERAMIC CHIP 0.068uF 25V	

< CONNECTOR >

Ref. No.	Part No.	Description	Remark
CN101	1-569-773-11	CONNECTOR, BOARD TO BOARD 17P	
CN102	1-569-774-11	CONNECTOR, BOARD TO BOARD 19P	

< JACK >

Ref. No.	Part No.	Description	Remark
CNJ002	1-507-792-31	JACK (CONTROL S IN)	
CNJ003	1-507-792-31	JACK (CONTROL S OUT)	
CNJ004	1-561-534-41	SOCKET 21P (EURO AV IN)	
CNJ005	1-561-534-41	SOCKET 21P (EURO AV IN/OUT)	
CNJ006	1-565-727-11	JACK, PIN 3P (LINE OUT)	

< DIODE >

Ref. No.	Part No.	Description	Remark
D001	8-719-106-08	DIODE RD6.2M-B2	
D002	8-719-106-08	DIODE RD6.2M-B2	
D006	8-719-106-08	DIODE RD6.2M-B2	
D007	8-719-106-08	DIODE RD6.2M-B2	
D008	8-719-106-08	DIODE RD6.2M-B2	
D009	8-719-106-08	DIODE RD6.2M-B2	
D010	8-719-106-08	DIODE RD6.2M-B2	
D013	8-719-106-08	DIODE RD6.2M-B2	
D014	8-719-106-08	DIODE RD6.2M-B2	
D015	8-719-106-08	DIODE RD6.2M-B2	
D016	8-719-106-08	DIODE RD6.2M-B2	
D019	8-719-106-88	DIODE RD15M-B1	

< COIL >

Ref. No.	Part No.	Description	Remark
L001	1-410-336-11	INDUCTOR 220uH	
L002	1-410-336-11	INDUCTOR 220uH	
L003	1-410-336-11	INDUCTOR 220uH	
L004	1-410-336-11	INDUCTOR 220uH	
L005	1-410-336-11	INDUCTOR 220uH	
L006	1-410-336-11	INDUCTOR 220uH	

< TRANSISTOR >

Ref. No.	Part No.	Description	Remark
Q001	8-729-901-06	TRANSISTOR DTA144EK	
Q002	8-729-901-01	TRANSISTOR DTC144EK	

< RESISTOR >

Ref. No.	Part No.	Description	Remark
R002	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R004	1-216-022-00	METAL CHIP 75 5% 1/10W	
R005	1-216-295-00	METAL CHIP 0 5% 1/10W	
R007	1-216-295-00	METAL CHIP 0 5% 1/10W	
R009	1-216-031-00	METAL CHIP 180 5% 1/10W	
R010	1-216-031-00	METAL CHIP 180 5% 1/10W	
R011	1-216-295-00	METAL CHIP 0 5% 1/10W	
R013	1-216-295-00	METAL CHIP 0 5% 1/10W	
R015	1-216-022-00	METAL CHIP 75 5% 1/10W	
R016	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R017	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R018	1-216-077-00	METAL CHIP 15K 5% 1/10W	
R019	1-216-077-00	METAL CHIP 15K 5% 1/10W	
R020	1-216-295-00	METAL CHIP 0 5% 1/10W	
R022	1-216-295-00	METAL CHIP 0 5% 1/10W	
R023	1-216-049-00	METAL CHIP 1K 5% 1/10W	

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* 1-635-216-11 JS-20 BOARD (Ref.No 8,000 Series)
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< CONNECTOR >

Ref. No.	Part No.	Description	Remark
CN901	* 1-563-610-11	CONNECTOR, FLEXIBLE 7P	

< SWITCH >

Ref. No.	Part No.	Description	Remark
S901	1-572-384-11	SWITCH, ROTARY (JOG/SHUTTLE)	

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Ref. No.	Part No.	Description			Remark
*	A-6717-597-A	MA-62 BOARD, COMPLETE (SLV-715VP)			
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*	A-6717-600-A	MA-62 BOARD, COMPLETE (SLV-715/UB)			
		*********************			
		(Ref.No 4,000 Series)			
*	1-635-225-11	SI-10 BOARD (Ref.No 4,000 Series)			
		***********			
	9-911-839-XX	RETAINER (B), MICROPHONE			
*	3-682-419-41	HOLDER, P.C.B			
*	3-743-679-01	CASE, SHIELD, AU			
	9-911-840-XX	CUSHION, RUBBER			
		< CAPACITOR >			
C101	1-124-907-11	ELECT	10uF	20%	50V
C102	1-124-907-11	ELECT	10uF	20%	50V
C103	1-124-907-11	ELECT	10uF	20%	50V
C104	1-124-907-11	ELECT	10uF	20%	50V
C200	1-162-294-31	CERAMIC	0.001uF	10%	50V
C231	1-124-477-11	ELECT	47uF	20%	25V
C232	1-124-471-00	ELECT	1000uF	20%	6.3V
C233	1-124-477-11	ELECT	47uF	20%	25V
C234	1-124-443-00	ELECT	100uF	20%	10V
C235	1-124-471-00	ELECT	1000uF	20%	6.3V
C250	1-109-675-11	MICA	120PF	1%	500V
C251	1-124-126-00	ELECT	47uF	20%	10V
C252	1-164-083-11	CERAMIC	680PF	10%	50V
C254	1-102-123-00	CERAMIC	0.0033uF	10%	50V
C255	1-124-903-11	ELECT	1uF	20%	50V
C256	1-124-902-00	ELECT	0.47uF	20%	50V
C257	1-124-126-00	ELECT	47uF	20%	10V
C258	1-130-484-00	MYLAR	0.012uF	5%	50V
C259	1-126-160-11	ELECT	1uF	20%	50V
C261	1-126-233-11	ELECT	22uF	20%	50V
C262	1-124-126-00	ELECT	47uF	20%	10V
C264	1-102-978-00	CERAMIC	220PF	5%	50V
C265	1-124-903-11	ELECT	1uF	20%	50V
C266	1-124-126-00	ELECT	47uF	20%	10V
C268	1-124-903-11	ELECT	1uF	20%	50V
C269	1-126-160-11	ELECT	1uF	20%	50V
C270	1-124-903-11	ELECT	1uF	20%	50V
C271	1-161-057-00	CERAMIC	0.033uF	10%	50V
C273	1-161-056-00	CERAMIC	0.027uF	10%	25V
C274	1-126-163-11	ELECT	4.7uF	20%	50V
C275	1-124-126-00	ELECT	47uF	20%	10V
C276	1-164-087-11	CERAMIC	0.0015uF	10%	50V
C277	1-161-051-00	CERAMIC	0.01uF	10%	50V
C278	1-136-561-11	FILM	0.0068uF	10%	400V
C280	1-130-483-00	MYLAR	0.01uF	5%	50V
C281	1-161-056-00	CERAMIC	0.027uF	10%	25V
C282	1-124-126-00	ELECT	47uF	20%	10V
C283	1-137-075-11	FILM	0.068uF	5%	100V
C284	1-164-087-11	CERAMIC	0.0015uF	10%	50V
C285	1-162-290-31	CERAMIC	470PF	10%	50V
C295	1-161-379-00	CERAMIC	0.01uF	20%	25V
C298	1-161-379-00	CERAMIC	0.01uF	20%	25V
C401	1-124-907-11	ELECT	10uF	20%	50V
C402	1-124-903-11	ELECT	1uF	20%	50V
C403	1-124-907-11	ELECT	10uF	20%	50V
C404	1-161-043-00	CERAMIC	0.0022uF	10%	50V
C405	1-124-499-11	ELECT, NONPOLAR	1uF	20%	50V
C406	1-124-126-00	ELECT	47uF	20%	10V
C407	1-164-070-11	CERAMIC	100PF	5%	50V
C408	1-164-096-11	CERAMIC	0.01uF		50V
C409	1-164-093-11	CERAMIC	0.0047uF	10%	25V
C410	1-164-096-11	CERAMIC	0.01uF		50V
C411	1-124-126-00	ELECT	47uF	20%	10V
C413	1-130-483-00	MYLAR	0.01uF	5%	50V
C414	1-102-121-00	CERAMIC	2200PF	10%	50V
C415	1-102-947-00	CERAMIC	10PF	5%	50V
C416	1-162-847-11	CERAMIC	0.047uF	20%	16V
C422	1-124-126-00	ELECT	47uF	20%	10V
C423	1-126-233-11	ELECT	22uF	20%	50V
C425	1-130-487-00	MYLAR	0.022uF	5%	50V
C426	1-124-925-11	ELECT	2.2uF	20%	100V
C427	1-130-491-00	MYLAR	0.047uF	5%	50V
C428	1-130-491-00	MYLAR	0.047uF	5%	50V
C431	1-162-290-31	CERAMIC	470PF	10%	50V
C501	1-164-096-11	CERAMIC	0.01uF		50V
C504	1-124-907-11	ELECT	10uF	20%	50V
C505	1-124-472-11	ELECT	470uF	20%	10V
C506	1-124-907-11	ELECT	10uF	20%	50V
C507	1-101-006-00	CERAMIC	0.047uF		50V
C508	1-124-478-11	ELECT	100uF	20%	25V
C509	1-102-953-00	CERAMIC	18PF	5%	50V
C510	1-102-953-00	CERAMIC	18PF	5%	50V
C515	1-164-096-11	CERAMIC	0.01uF		50V
C519	1-164-096-11	CERAMIC	0.01uF		50V
C520	1-162-211-31	CERAMIC	33PF	5%	50V
C522	1-164-068-11	CERAMIC	82PF	5%	50V
C523	1-164-096-11	CERAMIC	0.01uF		50V
C524	1-124-463-00	ELECT	0.1uF	20%	50V
C525	1-162-290-31	CERAMIC	470PF	10%	50V
C531	1-124-925-11	ELECT	2.2uF	20%	100V
C538	1-124-478-11	ELECT	100uF	20%	25V
C539	1-102-978-00	CERAMIC	220PF	5%	50V
C541	1-161-379-00	CERAMIC	0.01uF	20%	25V
C542	1-124-477-11	ELECT	47uF	20%	25V

MA-62 SI-10

Ref. No.	Part No.	Description			Remark
C543	1-162-849-11	CERAMIC	0.068uF	20%	16V
C544	1-102-074-00	CERAMIC	0.001uF	10%	50V
C545	1-102-074-00	CERAMIC	0.001uF	10%	50V
C601	1-162-199-31	CERAMIC	10PF	5%	50V
C802	1-124-907-11	ELECT	10uF	20%	50V
C809	1-124-907-11	ELECT	10uF	20%	50V
C811	1-124-907-11	ELECT	10uF	20%	50V
C812	1-124-927-11	ELECT	4.7uF	20%	100V
C813	1-124-903-11	ELECT	1uF	20%	50V
C814	1-102-973-00	CERAMIC	100PF	5%	50V
C815	1-162-211-31	CERAMIC	33PF	5%	50V
C816	1-124-907-11	ELECT	10uF	20%	50V
C818	1-161-379-00	CERAMIC	0.01uF	20%	25V
C820	1-162-835-11	CERAMIC	0.0047uF	10%	16V
C821	1-164-085-11	CERAMIC	0.001uF	10%	50V
C822	1-124-927-11	ELECT	4.7uF	20%	100V
C827	1-164-096-11	CERAMIC	0.01uF		50V
C838	1-126-157-11	ELECT	10uF	20%	16V
C840	1-126-157-11	ELECT	10uF	20%	16V
C841	1-126-157-11	ELECT	10uF	20%	16V
C842	1-126-157-11	ELECT	10uF	20%	16V
C844	1-164-096-11	CERAMIC	0.01uF		50V
C846	1-164-096-11	CERAMIC	0.01uF		50V
C847	1-162-306-11	CERAMIC	0.01uF	20%	16V
C848	1-162-306-11	CERAMIC	0.01uF	20%	16V
		< CONNECTOR >			
CN004	1-563-596-11	CONNECTOR, FLEXIBLE 19P			
CN007	1-563-596-11	CONNECTOR, FLEXIBLE 19P			
CN511	1-568-093-21	CONNECTOR (PLUG) 20P			
CN512	1-568-094-21	CONNECTOR (PLUG) 22P			
CN513	1-506-468-11	CONNECTOR 3P, MALE			
CN514	1-506-469-11	CONNECTOR 4P, MALE			
CN516	1-506-471-11	CONNECTOR 6P, MALE			
CN517	1-506-471-11	CONNECTOR 6P, MALE			
CN531	1-506-472-11	CONNECTOR 7P, MALE			
CN532	1-506-471-11	CONNECTOR 6P, MALE			
CN541	1-506-478-11	CONNECTOR 13P, MALE			
CN542	* 1-568-787-11	PIN, CONNECTOR 10P			
CN551	1-568-088-21	CONNECTOR (PLUG) 10P			
CN552	1-568-089-21	CONNECTOR (PLUG) 12P			
CN553	1-506-470-11	CONNECTOR 5P, MALE			
CN561	1-569-695-21	CONNECTOR, BOARD TO BOARD 17P			
CN562	1-569-696-21	CONNECTOR, BOARD TO BOARD 19P			
CN571	* 1-506-744-11	PIN, CONNECTOR 15P			
CN572	* 1-506-744-11	PIN, CONNECTOR 15P			
CN573	* 1-560-892-00	PIN, CONNECTOR 4P			
CN574	* 1-560-891-00	PIN, CONNECTOR 3P			
CN582	1-563-599-11	CONNECTOR, FLEXIBLE 22P			

Ref. No.	Part No.	Description		Remark
CN583	1-569-763-11	CONNECTOR, BOARD TO BOATD 30P		
CN584	1-569-763-11	CONNECTOR, BOARD TO BOATD 30P		
CN585	1-568-087-21	CONNECTOR (PLUG) 8P		
CN586	1-568-087-21	CONNECTOR (PLUG) 8P		
CN587	1-506-468-11	CONNECTOR 3P, MALE		
CN591	1-566-119-11	CONNECTOR, BOARD TO BOATD 6P		(SLV-715VP)
CN594	* 1-566-824-11	PIN, CONNECTOR (PC BOARD)		(SLV-715VP)
CN801	1-569-761-11	CONNECTOR, BOARD TO BOATD 20P		
		< DIODE >		
D401	8-719-911-19	DIODE	1SS119	
D402	8-719-911-19	DIODE	1SS119	
D403	8-719-911-19	DIODE	1SS119	
D404	8-719-911-19	DIODE	1SS119	
D409	8-719-101-50	DIODE	RD5.1E-L2	
D410	8-719-911-19	DIODE	1SS119	
D501	8-719-913-44	DIODE	ERA82-004	
D502	8-719-911-19	DIODE	1SS119	
D503	8-719-108-12	DIODE	RD9.1EW	
D504	8-719-108-12	DIODE	RD9.1EW	
D505	8-719-911-19	DIODE	1SS119	
D508	8-719-101-47	DIODE	RD4.7E-L2	
D516	8-719-911-19	DIODE	1SS119	
D517	8-719-911-19	DIODE	1SS119	
D518	8-719-200-82	DIODE	11ES2	
D519	8-719-109-93	DIODE	RD6.2ES-B2	
D601	8-719-109-93	DIODE	RD6.2ES-B2	
D703	8-719-911-19	DIODE	1SS119	
D704	8-719-911-19	DIODE	1SS119	
D801	8-719-911-19	DIODE	1SS119	
D802	8-719-911-19	DIODE	1SS119	
D803	8-719-911-19	DIODE	1SS119	
D804	8-719-911-19	DIODE	1SS119	
D805	8-719-911-19	DIODE	1SS119	
D806	8-719-911-19	DIODE	1SS119	
D807	8-719-911-19	DIODE	1SS119	
D999	8-719-911-19	DIODE	1SS119	
		< IC >		
IC251	8-759-805-20	IC	LA7297	
IC401	8-759-000-49	IC	MC14066BCP	
IC402	8-759-632-58	IC	M52435P	
IC403	8-759-008-70	IC	LM358N	
IC404	8-759-981-85	IC	RC4556D	
IC406	8-759-008-71	IC	LM324N	
IC501	8-752-815-90	IC	CXP80624-009Q	
IC502	⚠ 8-759-983-45	IC	BA6238A	
IC503	8-759-038-87	IC	MC68HC05P7	
IC801	8-759-208-08	IC	TC4052BPHB	

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Ref. No.	Part No.	Description	Remark
IC802	8-759-923-90	IC BA4560	
IC803	8-759-208-08	IC TC4052BPHB	
IC804	8-759-923-90	IC BA4560	
IC809	8-759-822-71	IC LA7954	
IC810	8-759-602-49	IC M5201P	
IC812	8-759-040-70	IC MC14070BCP	

< INDUCTOR >

Ref. No.	Part No.	Description	Remark
JW062	1-410-316-11	INDUCTOR 1UH	
JW168	1-124-907-11	ELECT 10MF 20%	50V

< COIL >

Ref. No.	Part No.	Description	Remark
L201	1-408-409-00	INDUCTOR 10uH	
L202	1-408-409-00	INDUCTOR 10uH	
L210	1-410-521-11	INDUCTOR 100uH	
L213	1-410-521-11	INDUCTOR 100uH	
L251	1-410-067-21	INDUCTOR 4.7mH	
L252	1-412-092-11	INDUCTOR, SMALL TYPE	
L253	1-410-687-11	INDUCTOR 1.2mH	
L254	1-408-426-00	INDUCTOR 270uH	
L400	1-410-509-11	INDUCTOR 10uH	
L501	1-408-413-00	INDUCTOR 22uH	
L502	1-408-413-00	INDUCTOR 22uH	
L504	1-410-501-11	INDUCTOR 2.2uH	
L505	1-410-501-11	INDUCTOR 2.2uH	

< IC LINK >

Ref. No.	Part No.	Description	Remark
PS202	⚠ 1-532-605-00	LINK, IC (0.4A) ICP-N10	

< TRANSISTOR >

Ref. No.	Part No.	Description	Remark
Q101	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q102	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q203	8-729-920-68	TRANSISTOR 2SA933S-QR	
Q204	8-729-920-68	TRANSISTOR 2SA933S-QR	
Q251	8-729-102-14	TRANSISTOR 2SD1021	
Q253	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q254	⚠ 8-729-140-96	TRANSISTOR 2SD774-34	
Q401	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q403	8-729-115-10	TRANSISTOR 2SK105A-10	
Q404	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q405	8-729-900-89	TRANSISTOR DTC144ES	
Q410	8-729-900-65	TRANSISTOR DTA144ES	
Q412	8-729-900-89	TRANSISTOR DTC144ES	
Q423	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q428	8-729-920-68	TRANSISTOR 2SA933S-QR	
Q430	8-729-900-89	TRANSISTOR DTC144ES	
Q431	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q434	8-729-601-47	TRANSISTOR 2SK381-B	
Q435	8-729-601-47	TRANSISTOR 2SK381-B	
Q501	8-729-900-61	TRANSISTOR DTA114ES	
Q502	8-729-900-61	TRANSISTOR DTA114ES	
Q503	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q504	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q505	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q506	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q507	8-729-900-61	TRANSISTOR DTA114ES	
Q508	8-729-620-05	TRANSISTOR 2SC2603-EF	
Q514	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q515	8-729-920-68	TRANSISTOR 2SA933S-QR	
Q516	8-729-900-80	TRANSISTOR DTC114ES	
Q517	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q518	8-729-900-89	TRANSISTOR DTC144ES	
Q519	8-729-900-65	TRANSISTOR DTA144ES	
Q701	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q801	8-729-900-89	TRANSISTOR DTC144ES	
Q802	8-729-900-89	TRANSISTOR DTC144ES	
Q803	8-729-920-68	TRANSISTOR 2SA933S-QR	
Q804	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q805	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q807	⚠ 8-729-119-78	TRANSISTOR 2SC2785-HFE	

< RESISTOR >

Ref. No.	Part No.	Description	Remark
R005	1-249-429-11	CARBON 10K 5% 1/4W	
R101	1-249-435-11	CARBON 33K 5% 1/4W	
R102	1-249-441-11	CARBON 100K 5% 1/4W	
R103	1-249-417-11	CARBON 1K 5% 1/4W	
R104	1-249-423-11	CARBON 3.3K 5% 1/4W	
R105	1-249-423-11	CARBON 3.3K 5% 1/4W	
R106	1-249-441-11	CARBON 100K 5% 1/4W	
R107	1-249-435-11	CARBON 33K 5% 1/4W	
R108	1-249-417-11	CARBON 1K 5% 1/4W	
R136	1-249-413-11	CARBON 470 5% 1/4W	
R137	1-249-413-11	CARBON 470 5% 1/4W	
R138	⚠ 1-249-385-11	CARBON 2.2 5% 1/6W	
R201	1-249-417-11	CARBON 1K 5% 1/4W	
R210	1-249-405-11	CARBON 100 5% 1/4W	
R211	1-249-405-11	CARBON 100 5% 1/4W	
R222	1-249-410-11	CARBON 270 5% 1/4W	
R224	1-249-406-11	CARBON 120 5% 1/4W	
R225	1-249-405-11	CARBON 100 5% 1/4W	
R227	1-249-403-11	CARBON 68 5% 1/4W	
R232	1-247-804-11	CARBON 75 5% 1/4W	
R252	1-249-393-11	CARBON 10 5% 1/4W	
R253	1-249-416-11	CARBON 820 5% 1/4W	
R254	1-249-411-11	CARBON 330 5% 1/4W	
R255	1-247-885-00	CARBON 180K 5% 1/4W	
R256	1-249-429-11	CARBON 10K 5% 1/4W	

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

MA-62 SI-10

Ref. No.	Part No.	Description			Remark
R257	1-249-437-11	CARBON	47K	5%	1/4W
R258	1-249-439-11	CARBON	68K	5%	1/4W
R259	1-249-419-11	CARBON	1.5K	5%	1/4W
R260	1-247-903-00	CARBON	1M	5%	1/4W
R261	1-247-895-00	CARBON	470K	5%	1/4W
R262	1-249-438-11	CARBON	56K	5%	1/4W
R263	1-249-432-11	CARBON	18K	5%	1/4W
R264	1-249-427-11	CARBON	6.8K	5%	1/4W
R265	1-249-429-11	CARBON	10K	5%	1/4W
R266	1-249-429-11	CARBON	10K	5%	1/4W
R267	1-249-429-11	CARBON	10K	5%	1/4W
R268	1-249-429-11	CARBON	10K	5%	1/4W
R269	1-249-406-11	CARBON	120	5%	1/4W
R270	1-249-422-11	CARBON	2.7K	5%	1/4W
R272	1-249-414-11	CARBON	560	5%	1/4W
R273	1-249-427-11	CARBON	6.8K	5%	1/4W
R274	1-249-434-11	CARBON	27K	5%	1/4W
R275	⚠ 1-249-387-11	CARBON	3.3	5%	1/4W
R277	1-249-429-11	CARBON	10K	5%	1/4W
R278	1-249-425-11	CARBON	4.7K	5%	1/4W
R282	1-249-429-11	CARBON	10K	5%	1/4W
R283	⚠ 1-249-387-11	CARBON	3.3	5%	1/4W
R299	1-249-436-11	CARBON	39K	5%	1/4W
R401	1-249-429-11	CARBON	10K	5%	1/4W
R403	1-249-433-11	CARBON	22K	5%	1/4W
R404	1-249-433-11	CARBON	22K	5%	1/4W
R405	1-249-433-11	CARBON	22K	5%	1/4W
R406	1-249-433-11	CARBON	22K	5%	1/4W
R408	1-249-429-11	CARBON	10K	5%	1/4W
R411	1-249-429-11	CARBON	10K	5%	1/4W
R412	1-249-427-11	CARBON	6.8K	5%	1/4W
R413	1-249-441-11	CARBON	100K	5%	1/4W
R414	1-247-887-00	CARBON	220K	5%	1/4W
R415	1-249-405-11	CARBON	100	5%	1/4W
R416	1-247-885-00	CARBON	180K	5%	1/4W
R417	1-249-429-11	CARBON	10K	5%	1/4W
R418	1-247-889-00	CARBON	270K	5%	1/4W
R419	1-249-437-11	CARBON	47K	5%	1/4W
R420	1-249-413-11	CARBON	470	5%	1/4W
R421	1-249-433-11	CARBON	22K	5%	1/4W
R424	1-249-433-11	CARBON	22K	5%	1/4W
R425	1-249-437-11	CARBON	47K	5%	1/4W
R426	1-249-433-11	CARBON	22K	5%	1/4W
R427	1-249-436-11	CARBON	39K	5%	1/4W
R428	1-249-429-11	CARBON	10K	5%	1/4W
R429	1-249-429-11	CARBON	10K	5%	1/4W
R430	1-249-430-11	CARBON	12K	5%	1/4W
R431	1-249-431-11	CARBON	15K	5%	1/4W
R432	1-249-429-11	CARBON	10K	5%	1/4W

Ref. No.	Part No.	Description			Remark
R433	1-249-433-11	CARBON	22K	5%	1/4W
R434	1-249-433-11	CARBON	22K	5%	1/4W
R435	1-249-437-11	CARBON	47K	5%	1/4W
R436	1-249-433-11	CARBON	22K	5%	1/4W
R437	1-249-437-11	CARBON	47K	5%	1/4W
R441	1-247-895-00	CARBON	470K	5%	1/4W
R442	1-249-429-11	CARBON	10K	5%	1/4W
R443	1-249-441-11	CARBON	100K	5%	1/4W
R444	1-249-441-11	CARBON	100K	5%	1/4W
R448	1-249-417-11	CARBON	1K	5%	1/4W
R449	1-247-885-00	CARBON	180K	5%	1/4W
R450	1-249-417-11	CARBON	1K	5%	1/4W
R452	1-249-425-11	CARBON	4.7K	5%	1/4W
R453	1-249-429-11	CARBON	10K	5%	1/4W
R454	1-249-415-11	CARBON	680	5%	1/4W
R463	1-249-423-11	CARBON	3.3K	5%	1/4W
R465	1-249-423-11	CARBON	3.3K	5%	1/4W
R466	1-247-885-00	CARBON	180K	5%	1/4W
R467	1-249-430-11	CARBON	12K	5%	1/4W
R468	1-249-431-11	CARBON	15K	5%	1/4W
R470	1-249-415-11	CARBON	680	5%	1/4W
R488	1-249-417-11	CARBON	1K	5%	1/4W
R490	1-249-429-11	CARBON	10K	5%	1/4W
R491	1-249-419-11	CARBON	1.5K	5%	1/4W
R496	1-249-435-11	CARBON	33K	5%	1/4W
R497	1-249-429-11	CARBON	10K	5%	1/4W
R502	⚠ 1-249-385-11	CARBON	2.2	5%	1/6W
R505	1-249-429-11	CARBON	10K	5%	1/4W
R509	1-249-417-11	CARBON	1K	5%	1/4W
R510	1-249-417-11	CARBON	1K	5%	1/4W
R511	1-249-417-11	CARBON	1K	5%	1/4W
R512	1-249-429-11	CARBON	10K	5%	1/4W
R513	1-247-705-11	CARBON	270	5%	1/4W
R514	1-249-417-11	CARBON	1K	5%	1/4W
R515	1-249-417-11	CARBON	1K	5%	1/4W
R516	1-249-429-11	CARBON	10K	5%	1/4W
R517	1-249-437-11	CARBON	47K	5%	1/4W
R518	1-249-425-11	CARBON	4.7K	5%	1/4W
R519	1-249-425-11	CARBON	4.7K	5%	1/4W
R521	1-249-429-11	CARBON	10K	5%	1/4W
R522	1-249-429-11	CARBON	10K	5%	1/4W
R523	1-249-429-11	CARBON	10K	5%	1/4W
R524	1-249-428-11	CARBON	8.2K	5%	1/4W
R526	1-249-437-11	CARBON	47K	5%	1/4W
R527	1-249-431-11	CARBON	15K	5%	1/4W
R528	1-249-419-11	CARBON	1.5K	5%	1/4W
R529	1-249-418-11	CARBON	1.2K	5%	1/4W
R530	1-249-417-11	CARBON	1K	5%	1/4W
R531	1-249-417-11	CARBON	1K	5%	1/4W

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Ref. No.	Part No.	Description				Remark
R532	1-249-421-11	CARBON	2.2K	5%	1/4W	
R533	1-247-897-11	CARBON	560K	5%	1/4W	
R534	1-249-428-11	CARBON	8.2K	5%	1/4W	
R535	1-249-410-11	CARBON	270	5%	1/4W	
R536	1-249-421-11	CARBON	2.2K	5%	1/4W	
R537	1-249-437-11	CARBON	47K	5%	1/4W	
R538	1-249-427-11	CARBON	6.8K	5%	1/4W	
R539	1-249-417-11	CARBON	1K	5%	1/4W	
R540	1-249-435-11	CARBON	33K	5%	1/4W	
R541	1-249-429-11	CARBON	10K	5%	1/4W	
R542	1-249-432-11	CARBON	18K	5%	1/4W	
R543	1-249-401-11	CARBON	47	5%	1/4W	
R548	1-249-436-11	CARBON	39K	5%	1/4W	
R552	1-249-429-11	CARBON	10K	5%	1/4W	
R553	1-249-417-11	CARBON	1K	5%	1/4W	
R555	1-249-441-11	CARBON	100K	5%	1/4W	
R556	1-249-437-11	CARBON	47K	5%	1/4W	
R557	1-249-437-11	CARBON	47K	5%	1/4W	
R558	1-249-437-11	CARBON	47K	5%	1/4W	
R561	1-249-437-11	CARBON	47K	5%	1/4W	
R562	1-249-437-11	CARBON	47K	5%	1/4W	
R563	1-249-437-11	CARBON	47K	5%	1/4W	
R564	1-249-437-11	CARBON	47K	5%	1/4W	
R565	1-249-437-11	CARBON	47K	5%	1/4W	
R566	1-249-437-11	CARBON	47K	5%	1/4W	
R567	1-249-437-11	CARBON	47K	5%	1/4W	
R572	1-249-405-11	CARBON	100	5%	1/4W	
R573	1-249-427-11	CARBON	6.8K	5%	1/4W	
R574	1-247-903-00	CARBON	1M	5%	1/4W	
R582	1-247-891-00	CARBON	330K	5%	1/4W	
R583	1-247-887-00	CARBON	220K	5%	1/4W	
R589	1-249-421-11	CARBON	2.2K	5%	1/4W	
R590	⚠1-249-377-11	CARBON	0.47	5%	1/4W	F
R591	1-249-422-11	CARBON	2.7K	5%	1/4W	
R595	1-249-429-11	CARBON	10K	5%	1/4W	
R596	1-249-429-11	CARBON	10K	5%	1/4W	
R598	1-249-413-11	CARBON	470	5%	1/4W	
R599	1-249-437-11	CARBON	47K	5%	1/4W	
R751	1-249-414-11	CARBON	560	5%	1/4W	
R752	1-249-423-11	CARBON	3.3K	5%	1/4W	
R801	1-249-428-11	CARBON	8.2K	5%	1/4W	
R802	1-249-428-11	CARBON	8.2K	5%	1/4W	
R803	1-249-425-11	CARBON	4.7K	5%	1/4W	
R804	1-249-425-11	CARBON	4.7K	5%	1/4W	
R805	1-249-428-11	CARBON	8.2K	5%	1/4W	
R806	1-249-428-11	CARBON	8.2K	5%	1/4W	
R807	1-249-429-11	CARBON	10K	5%	1/4W	
R808	1-249-441-11	CARBON	100K	5%	1/4W	

Ref. No.	Part No.	Description				Remark
R809	1-249-441-11	CARBON	100K	5%	1/4W	
R810	1-249-435-11	CARBON	33K	5%	1/4W	
R813	1-249-432-11	CARBON	18K	5%	1/4W	
R814	1-249-441-11	CARBON	100K	5%	1/4W	
R815	1-249-437-11	CARBON	47K	5%	1/4W	
R816	1-249-436-11	CARBON	39K	5%	1/4W	
R817	1-249-437-11	CARBON	47K	5%	1/4W	
R818	1-249-435-11	CARBON	33K	5%	1/4W	
R819	1-249-434-11	CARBON	27K	5%	1/4W	
R820	1-249-427-11	CARBON	6.8K	5%	1/4W	
R821	1-249-430-11	CARBON	12K	5%	1/4W	
R822	1-249-417-11	CARBON	1K	5%	1/4W	
R824	1-247-883-00	CARBON	150K	5%	1/4W	
R825	1-249-413-11	CARBON	470	5%	1/4W	
R826	1-249-419-11	CARBON	1.5K	5%	1/4W	
R827	1-247-903-00	CARBON	1M	5%	1/4W	
R828	1-249-419-11	CARBON	1.5K	5%	1/4W	
R829	1-249-422-11	CARBON	2.7K	5%	1/4W	
R830	1-249-429-11	CARBON	10K	5%	1/4W	
R831	1-249-435-11	CARBON	33K	5%	1/4W	
R837	1-249-417-11	CARBON	1K	5%	1/4W	
R838	1-249-417-11	CARBON	1K	5%	1/4W	
R840	1-249-413-11	CARBON	470	5%	1/4W	
R841	1-249-417-11	CARBON	1K	5%	1/4W	
R843	1-249-428-11	CARBON	8.2K	5%	1/4W	
R844	1-249-433-11	CARBON	22K	5%	1/4W	
R845	1-249-433-11	CARBON	22K	5%	1/4W	
R847	1-249-429-11	CARBON	10K	5%	1/4W	
R849	1-249-429-11	CARBON	10K	5%	1/4W	
R851	1-249-437-11	CARBON	47K	5%	1/4W	
R852	1-249-437-11	CARBON	47K	5%	1/4W	
R853	1-249-437-11	CARBON	47K	5%	1/4W	
R854	1-249-437-11	CARBON	47K	5%	1/4W	
R855	1-249-437-11	CARBON	47K	5%	1/4W	
R856	1-249-437-11	CARBON	47K	5%	1/4W	
R857	1-249-424-11	CARBON	3.9K	5%	1/4W	
R858	1-249-417-11	CARBON	1K	5%	1/4W	
R859	1-249-441-11	CARBON	100K	5%	1/4W	
R863	1-249-441-11	CARBON	100K	5%	1/4W	
R901	1-249-417-11	CARBON	1K	5%	1/4W	
R903	1-247-887-00	CARBON	220K	5%	1/4W	

< VARIABLE RESISTOR >

RV251	1-238-021-11	RES, ADJ, CARBON 220K
RV501	1-238-016-11	RES, ADJ, CARBON 10K

< TRANSFORMER >

T251	1-433-352-11	TRANSFORMER, BIAS OSCILLATION

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Ref. No.	Part No.	Description	Remark
T252	1-406-349-11	TRANSFORMER, OSCILLATION	
		< CRYSTAL >	
X501	1-578-774-11	VIBRATOR, CRYSTAL (12MHz)	
X503	1-577-358-21	VIBRATOR, CERAMIC (4MHz)	

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A-6754-228-A MD-49 BOARD, COMPLETE

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(Ref.No 6,000 Series)

Ref. No.	Part No.	Description	Remark
	* 2-387-601-01	CUSHION, RUBBER	
		< CAPACITOR >	
C001	1-161-494-00	CERAMIC 0.022uF 25V	
C002	1-161-494-00	CERAMIC 0.022uF 25V	
C003	1-126-157-11	ELECT 10uF 20% 16V	
C004	1-161-379-00	CERAMIC 0.01uF 20% 25V	
C005	1-126-157-11	ELECT 10uF 20% 16V	
C006	1-124-589-11	ELECT 47uF 20% 16V	
C008	1-164-159-11	CERAMIC 0.1uF 50V	
C009	1-164-159-11	CERAMIC 0.1uF 50V	
C011	1-162-849-11	CERAMIC 0.068uF 10% 16V	
C012	1-162-849-11	CERAMIC 0.068uF 10% 16V	
C013	1-162-849-11	CERAMIC 0.068uF 10% 16V	
C014	1-126-160-11	ELECT 1uF 20% 50V	
C016	1-124-589-11	ELECT 47uF 20% 16V	
C017	1-126-162-11	ELECT 3.3uF 20% 50V	
C018	1-124-589-11	ELECT 47uF 20% 16V	
C019	1-124-589-11	ELECT 47uF 20% 16V	
C020	1-164-159-11	CERAMIC 0.1uF 50V	
C021	1-162-292-31	CERAMIC 680PF 10% 50V	
C022	1-161-379-00	CERAMIC 0.01uF 20% 25V	
C025	1-163-205-00	CERAMIC CHIP 0.001uF 5% 50V	
C026	1-163-205-00	CERAMIC CHIP 0.001uF 5% 50V	
		< CONNECTOR >	
CN001	1-506-494-11	PIN, CONNECTOR 15P	
CN002	1-569-335-11	CONNECTOR, BOARD TO BOARD 9P	
CN003	1-569-334-11	CONNECTOR, BOARD TO BOARD 5P	
CN004	1-563-622-21	CONNECTOR, FLEXIBLE 19P	
CN005	1-506-482-11	CONNECTOR 3P, MALE	
CN006	1-569-333-11	CONNECTOR, BOARD TO BOARD 3P	
CN007	1-563-622-21	CONNECTOR, FLEXIBLE 19P	
		< DIODE >	
D001	8-719-974-65	DIODE GL451V	
D004	8-719-109-93	DIODE RD6.2ES-B2	
D005	8-719-109-93	DIODE RD6.2ES-B2	
D006	8-719-109-93	DIODE RD6.2ES-B2	
D007	8-719-109-93	DIODE RD6.2ES-B2	
		< IC >	
IC002	8-759-938-12	IC BA10324	
IC004	⚠ 8-759-234-03	IC TA8424F	
		< PHOTO INTERUPTER >	
PH001	8-759-144-33	PHOTO SENSOR PS6002	
PH002	8-759-144-33	PHOTO SENSOR PS6002	
		< IC LINK >	
PS001	⚠ 1-532-685-00	LINK, IC (ICP-N20) 0.8A	
		< TRANSISTOR >	
Q001	8-729-926-31	PHOTO TRANSISTOR PT483F1	
Q002	8-729-926-31	PHOTO TRANSISTOR PT483F1	
		< RESISTOR >	
R001	1-249-423-11	CARBON 3.3K 5% 1/4W	
R002	1-249-423-11	CARBON 3.3K 5% 1/4W	
R003	1-249-426-11	CARBON 5.6K 5% 1/4W	
R004	1-249-426-11	CARBON 5.6K 5% 1/4W	
R005	1-249-415-11	CARBON 680 5% 1/4W	
R006	1-249-441-11	CARBON 100K 5% 1/4W	
R007	1-249-441-11	CARBON 100K 5% 1/4W	
R008	1-249-425-11	CARBON 4.7K 5% 1/4W	
R009	1-249-409-11	CARBON 220 5% 1/4W	
R010	1-249-425-11	CARBON 4.7K 5% 1/4W	
R011	1-249-437-11	CARBON 47K 5% 1/4W	
R012	1-249-421-11	CARBON 2.2K 5% 1/4W	
R013	1-249-429-11	CARBON 10K 5% 1/4W	
R014	1-249-426-11	CARBON 5.6K 5% 1/4W	
R015	1-249-437-11	CARBON 47K 5% 1/4W	
R016	1-249-421-11	CARBON 2.2K 5% 1/4W	
R019	1-249-377-11	CARBON 0.47 5% 1/4W	F
R020	1-249-406-11	CARBON 120 5% 1/4W	
R021	1-249-383-11	CARBON 1.5 5% 1/6W	
R022	1-249-408-11	CARBON 180 5% 1/4W	
R023	1-249-414-11	CARBON 560 5% 1/4W	
R024	1-249-417-11	CARBON 1K 5% 1/4W	
R025	1-247-891-00	CARBON 330K 5% 1/4W	
R027	1-249-383-11	CARBON 1.5 5% 1/6W	
R028	1-249-383-11	CARBON 1.5 5% 1/6W	
		< SWITCH >	
S001	1-570-953-11	SWITCH, PUSH (1 KEY)	

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

MF-94 **RM-41**

Ref. No.	Part No.	Description	Remark
	* A-6756-033-A	MF-94 BOARD, COMPLETE (SLV-715)	
		*********************	
	* A-6756-042-A	MF-94 BOARD, COMPLETE (SLV-715VP)	
		*********************	
	* A-6756-052-A	MF-94 BOARD, COMPLETE (SLV-715UB)	
		*********************	
		(Ref. No 8,000 Series)	
	* 1-635-213-24	RM-41 BOARD (Ref. No 8,000 Series)	
		***********	
	* 3-682-419-51	HOLDER, P.C.B	
	* 3-743-637-01	HOLDER, FL	
	* 3-744-061-01	COVER, LAMP	
		< BUZZER >	
BZ201	1-529-080-11	BUZZER, PIEZOELECTRIC	
		< CAPACITOR >	
C202	1-163-113-00	CERAMIC CHIP 68PF 5% 50V	
C203	1-163-105-00	CERAMIC CHIP 33PF 5% 50V	
C204	1-163-105-00	CERAMIC CHIP 33PF 5% 50V	
C205	1-163-809-11	CERAMIC CHIP 0.047uF 10% 25V	
C206	1-164-232-11	CERAMIC CHIP 0.01uF 50V	
C207	1-125-486-11	DUBLE LAYERS 0.22F 5.5V	
C208	1-126-157-11	ELECT 10uF 20% 16V	
C209	1-126-154-11	ELECT 47uF 20% 6.3V	
C210	1-164-232-11	CERAMIC CHIP 0.01uF 50V	
C211	1-163-809-11	CERAMIC CHIP 0.047uF 10% 25V	
C212	1-126-096-11	ELECT 10uF 20% 35V	
C214	1-124-589-11	ELECT 47uF 20% 16V	
C215	1-164-232-11	CERAMIC CHIP 0.01uF 50V	
C218	1-126-163-11	ELECT 4.7uF 20% 50V	
C219	1-126-163-11	ELECT 4.7uF 20% 50V	
C220	1-163-181-00	CERAMIC CHIP 100PF 5% 50V	
C221	1-163-117-00	CERAMIC CHIP 100PF 5% 50V	
C222	1-164-232-11	CERAMIC CHIP 0.01uF 50V	
C223	1-163-117-00	CERAMIC CHIP 100PF 5% 50V	
C224	1-163-117-00	CERAMIC CHIP 100PF 5% 50V	
C225	1-163-117-00	CERAMIC CHIP 100PF 5% 50V	
C226	1-163-037-11	CERAMIC CHIP 0.022uF 10% 25V	
C230	1-126-160-11	ELECT 1uF 20% 50V	
C231	1-126-160-11	ELECT 1uF 20% 50V	
C232	1-164-232-11	CERAMIC CHIP 0.01uF 50V	
C233	1-124-472-11	ELECT 470uF 20% 10V	
C234	1-163-133-00	CERAMIC CHIP 470PF 5% 50V	
		< CONNECTOR >	
CN201	1-569-814-11	CONNECTOR, BOARD TO BOARD 21P	
CN202	1-568-080-11	CONNECTOR (RECEPTALE) 22P	

Ref. No.	Part No.	Description	Remark
CN203	1-568-079-11	CONNECTOR (RECEPTALE) 20P	
CN204	* 1-569-666-11	PIN, CONNECTOR (PC BOARD) 5P	
CN207	1-506-468-11	CONNECTOR 3P, MALE	
CN208	* 1-569-666-11	PIN, CONNECTOR (PC BOARD) 5P	
CN401	* 1-565-042-11	HOUSING, CONNECTOR (PC BOARD) 5P	
CN402	* 1-565-042-11	HOUSING, CONNECTOR (PC BOARD) 5P	
		< TRIMMER >	
CV201	1-141-291-11	CAP, TRIMMER 20PF	
		< DIODE >	
D201	8-719-911-19	DIODE 1SS119	
D202	8-719-911-19	DIODE 1SS119	
D203	8-719-911-19	DIODE 1SS119	
D204	⚠ 8-719-911-19	DIODE 1SS119	
D206	8-719-104-34	DIODE 1S2836	
D208	⚠ 8-719-105-82	DIODE RD5.1M-B2	
D209	8-719-106-08	DIODE RD6.2M-B2	
D211	8-719-400-18	DIODE MA152WK	
D212	8-719-400-18	DIODE MA152WK	
D216	8-719-400-18	DIODE MA152WK	
D217	8-719-400-18	DIODE MA152WK	
D218	8-719-104-34	DIODE DAP202K-T-146	
D219	8-719-106-08	DIODE RD6.2M-B2	
D402	8-719-955-04	DIODE PY5504S-1 (YEL) (AUTO TRACKING)	
D404	8-719-940-99	DIODE SLR-34VC3 (AUDIO INSERT)	
D405	8-719-940-99	DIODE SLR-34VC3 (VIDEO INSERT)	
D406	8-719-940-82	DIODE SLR-34MC3 (◄◄◄)	
		< IC >	
IC201	8-759-504-10	IC MB89794B-PAL	
IC202	8-759-748-54	IC CAT35C202P	
IC203	8-759-502-50	IC S-8053HNB	
IC204	8-759-947-53	IC S-8054ALR	
IC205	8-759-961-38	IC BA6138	
IC401	1-466-131-21	IC GP1U52X	
		< JUMPER RESISTOR >	
JR001	1-216-295-00	METAL CHIP 0 5% 1/10W	
		< COIL >	
L201	1-408-422-00	INDUCTOR 120uH	
L203	1-410-336-11	INDUCTOR 220uH	
L204	1-410-517-11	INDUCTOR 47uH	
L205	1-410-501-11	INDUCTOR 2.2uH	
L206	1-410-501-11	INDUCTOR 2.2uH	
L207	1-410-501-11	INDUCTOR 2.2uH	

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Ref.No.	Part No.	Description	Remark
S002	1-570-953-11	SWITCH, PUSH (1 KEY)	

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Ref.No.	Part No.	Description	Remark
	* A-6756-034-A	MF-101 BOARD, COMPLETE (SLV-715)	
		**********************	
	* A-6756-043-A	MF-101 BOARD, COMPLETE (SLV-715VP)	
		**********************	
	* A-6756-051-A	MF-101 BOARD, COMPLETE (SLV-715UB)	
		**********************	
		(Ref.No 8,000 Series)	
	* 3-744-056-01	COVER, LED	
	* 3-749-306-01	PLATE, GROUND, MF	
	3-831-441-XX	SPACER	
		< CAPACITOR >	
C102	1-162-282-31	CERAMIC 100PF 10% 50V	
C104	1-162-282-31	CERAMIC 100PF 10% 50V	
C106	1-162-282-31	CERAMIC 100PF 10% 50V	
C108	1-162-282-31	CERAMIC 100PF 10% 50V	
C109	1-161-379-00	CERAMIC 0.01uF 20% 25V	
C111	1-161-379-00	CERAMIC 0.01uF 20% 25V	
C112	1-162-286-31	CERAMIC 220PF 10% 50V	
C113	1-126-157-11	ELECT 10uF 20% 16V	
		< CONNECTOR >	
CN101	1-569-669-11	CONNECTOR, BOARD TO BOARD 16P	
CN102	1-569-815-11	CONNECTOR, BOARD TO BOARD 21P	
CN103	1-506-483-21	CONNECTOR 4P, MALE	
CN104	1-506-490-21	PIN, CONNECTOR 11P	
CN105	1-506-485-11	CONNECTOR 6P, MALE	
CNJ101	1-562-808-11	JACK (MIC)	
CNJ102	1-565-669-21	JACK, SMALL TYPE (HEADPHONE)	
CNJ104	1-565-735-21	JACK, PIN 3P (LINE IN 2)	
CNJ105	1-568-611-11	SOCKET, DIN (SMALL TYPE) 5P (CONTROL L)	
		< COMPOSITION CIRCUIT BLOCK >	
CP101	1-233-220-11	COMPOSITION CIRCUIT BLOCK	
CP102	1-232-656-11	COMPOSITION CIRCUIT BLOCK	
		< DIODE >	
D101	8-719-955-04	DIODE PY5504S-1 (YEL) (SLV-715/VP)	
D101	8-719-988-92	LED BRPG5014X-K (SLV-715UB)	
D102	8-719-955-04	DIODE PY5504S-1 (YEL) (SLV-715/VP)	
D102	8-719-988-92	LED BRPG5014X-K (SLV-715UB)	
D103	8-719-110-36	DIODE RD13ES-B2	
D104	8-719-109-93	DIODE RD6.2ES-B2	
D105	8-719-911-19	DIODE 1SS119	
D107	8-719-109-93	DIODE RD6.2ES-B2	
D110	8-719-946-30	DIODE SLR-34DC3	

Ref.No.	Part No.	Description	Remark
D111	8-719-110-36	DIODE RD13ES-B2	
		< COIL >	
L101	1-410-336-11	INDUCTOR 220uH	
L102	1-410-336-11	INDUCTOR 220uH	
L103	1-410-336-11	INDUCTOR 220uH	
L104	1-410-336-11	INDUCTOR 220uH	
		< TRANSISTOR >	
Q101	8-729-119-78	TRANSISTOR 2SC2785-HFE (SLV-715UB)	
Q102	8-729-900-89	TRANSISTOR DTC144ES (SLV-715UB)	
		< RESISTOR >	
R101	1-249-407-11	CARBON 150 5% 1/4W	
R102	1-249-407-11	CARBON 150 5% 1/4W	
R103	1-249-423-11	CARBON 3.3K 5% 1/4W (SLV-715UB)	
R104	1-249-433-11	CARBON 22K 5% 1/4W	
R106	1-249-421-11	CARBON 2.2K 5% 1/4W	
R108	1-249-423-11	CARBON 3.3K 5% 1/4W	
R109	1-249-425-11	CARBON 4.7K 5% 1/4W	
R110	1-249-429-11	CARBON 10K 5% 1/4W	
R111	1-249-433-11	CARBON 22K 5% 1/4W	
R112	1-249-407-11	CARBON 150 5% 1/4W (SLV-715UB)	
R113	1-249-407-11	CARBON 150 5% 1/4W (SLV-715UB)	
R114	1-249-427-11	CARBON 6.8K 5% 1/4W	
R115	1-249-417-11	CARBON 1K 5% 1/4W	
R116	1-249-438-11	CARBON 56K 5% 1/4W	
R117	1-249-423-11	CARBON 3.3K 5% 1/4W	
R118	1-249-433-11	CARBON 22K 5% 1/4W	
R121	1-247-804-11	CARBON 75 5% 1/4W	
R124	1-249-426-11	CARBON 5.6K 5% 1/4W	
R125	1-249-428-11	CARBON 8.2K 5% 1/4W	
R126	1-249-426-11	CARBON 5.6K 5% 1/4W	
R127	1-249-428-11	CARBON 8.2K 5% 1/4W	
R128	1-249-405-11	CARBON 100 5% 1/4W	
R129	1-249-417-11	CARBON 1K 5% 1/4W	
		< VARIABLE RESISTOR >	
RV101	1-238-420-11	RES, VAR, CARBON 10K (PHONE LEVEL)	
RV102	1-241-061-11	RES, VAR, CARBON 2K (SHARPNESS)	
RV103	1-241-062-11	RES, VAR, CARBON 20K (REC LEVEL L)	
RV104	1-241-062-11	RES, VAR, CARBON 20K (REC LEVEL R)	
		< SWITCH >	
S101	1-571-977-11	SWITCH, TACTIL (POWER)	
S102	1-571-977-11	SWITCH, TACTIL (EJECT)	
S104	1-571-977-11	SWITCH, TACTIL (SYNCHRO EDIT)	
S105	1-570-854-11	SWITCH, SLIDE (COMMANDE MODE)	
S106	1-571-977-11	SWITCH, TACTIL (VPS) (SLV-715VP)	

Ref. No.	Part No.	Description	Remark
L208	1-410-501-11	INDUCTOR 2.2uH	(SLV-715VP)
L209	1-410-361-21	INDUCTOR 12uH	
L210	1-410-501-11	INDUCTOR 2.2uH	
L211	1-410-501-11	INDUCTOR 2.2uH	
L212	1-410-501-11	INDUCTOR 2.2uH	
L213	1-410-501-11	INDUCTOR 2.2uH	
L214	1-410-501-11	INDUCTOR 2.2uH	
L215	1-410-501-11	INDUCTOR 2.2uH	
L216	1-410-501-11	INDUCTOR 2.2uH	
L217	1-410-316-11	INDUCTOR 1uH	
L218	1-410-316-11	INDUCTOR 1uH	
		< INDICATION TUBE >	
ND201	1-519-633-11	INDICATION TUBE, FLUORESCENT	
		< TRANSISTOR >	
Q201	**8-729-230-49**	**TRANSISTOR 2SC2712-YG**	
Q202	**8-729-230-49**	**TRANSISTOR 2SC2712-YG**	
Q205	8-729-901-01	TRANSISTOR DTC144EK	
Q206	8-729-901-01	TRANSISTOR DTC144EK	
		< RESISTOR >	
R201	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R202	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R203	1-216-017-00	METAL CHIP 47 5% 1/10W	
R204	1-216-095-00	METAL CHIP 82K 5% 1/10W	
R205	1-216-025-00	METAL CHIP 100 5% 1/10W	
R206	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	(SLV-715)
R206	1-216-068-00	METAL CHIP 6.2K 5% 1/10W	(SLV-715VP)
R206	**1-216-063-00**	**METAL CHIP 3.3K 5% 1/10W**	**(SLV-715VP)**
R207	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	(SLV-715/UB)
R207	1-216-085-00	METAL CHIP 33K 5% 1/10W	
R208	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R210	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R211	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R212	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
R213	1-216-001-00	METAL CHIP 10 5% 1/10W	
R214	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R215	1-216-085-00	METAL CHIP 33K 5% 1/10W	
R216	1-216-037-00	METAL CHIP 330 5% 1/10W	
R217	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
R222	1-216-035-00	METAL CHIP 270 5% 1/10W	
R224	1-216-035-00	METAL CHIP 270 5% 1/10W	
R225	1-216-035-00	METAL CHIP 270 5% 1/10W	
R226	1-216-035-00	METAL CHIP 270 5% 1/10W	
R227	1-216-035-00	METAL CHIP 270 5% 1/10W	
R228	1-216-033-00	METAL CHIP 220 5% 1/10W	
R229	1-216-109-00	METAL CHIP 330K 5% 1/10W	

Ref. No.	Part No.	Description	Remark
R230	1-216-033-00	METAL CHIP 220 5%	1/10W
R231	1-216-109-00	METAL CHIP 330K 5%	1/10W
R242	1-216-037-00	METAL CHIP 330 5%	1/10W
R243	1-216-073-00	METAL CHIP 10K 5%	1/10W
R244	1-216-061-00	METAL CHIP 3.3K 5%	1/10W
R245	1-216-049-00	METAL CHIP 1K 5%	1/10W
R246	1-216-049-00	METAL CHIP 1K 5%	1/10W
R247	1-216-033-00	METAL CHIP 220 5%	1/10W
R248	1-249-413-11	CARBON 470 5%	1/4W
R249	1-216-049-00	METAL CHIP 1K 5%	1/10W
R250	1-216-186-00	METAL GLAZE 330 5%	1/8W
R251	1-216-037-00	METAL CHIP 330 5%	1/10W
R252	1-216-037-00	METAL CHIP 330 5%	1/10W
R253	1-216-089-00	METAL CHIP 47K 5%	1/10W
R254	1-216-089-00	METAL CHIP 47K 5%	1/10W
R255	1-216-073-00	METAL CHIP 10K 5%	1/10W
R256	1-216-073-00	METAL CHIP 10K 5%	1/10W
R301	1-216-073-00	METAL CHIP 10K 5%	1/10W
R302	1-216-073-00	METAL CHIP 10K 5%	1/10W
R303	1-216-073-00	METAL CHIP 10K 5%	1/10W
R304	1-216-073-00	METAL CHIP 10K 5%	1/10W
R305	1-216-073-00	METAL CHIP 10K 5%	1/10W
R306	1-216-073-00	METAL CHIP 10K 5%	1/10W
R307	1-216-073-00	METAL CHIP 10K 5%	1/10W
R308	1-216-073-00	METAL CHIP 10K 5%	1/10W
R310	1-216-073-00	METAL CHIP 10K 5%	1/10W
R312	1-216-295-00	METAL CHIP 0 5%	1/10W
		< VARIABLE RESISTOR >	
RV201	1-241-080-11	RES, ADJ, CARBON 10K	
RV202	1-241-080-11	RES, ADJ, CARBON 10K	
		< CRYSTAL >	
X201	1-567-098-00	CRYSTAL	
X202	1-579-223-11	OSCILLATOR, CERAMIC	

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A-6727-278-A PI-20 BOARD, COMPLETE

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(Ref.No 1,000 Series)

		< CAPACITOR >	
C214	1-164-232-11	CERAMIC CHIP 0.01uF	50V
C231	1-126-157-11	ELECT 10uF 20%	16V
C232	1-126-157-11	ELECT 10uF 20%	16V
C233	1-164-232-11	CERAMIC CHIP 0.01uF	50V
C250	1-124-589-11	ELECT 47uF 20%	16V
C261	1-124-287-00	ELECT 10uF 20%	10V

< CONNECTOR >

Ref. No.	Part No.	Description			Remark
CN201	1-569-816-11	CONNECTOR, BOARD TO BOARD 30P			
CN202	1-569-816-11	CONNECTOR, BOARD TO BOARD 30P			

< IC >

Ref. No.	Part No.	Description			Remark
IC202	8-759-822-60	IC LA7222			
IC206	8-759-511-44	IC LVA522S			

< COIL >

Ref. No.	Part No.	Description			Remark
L203	1-408-421-00	INDUCTOR	100uH		

< RESISTOR >

Ref. No.	Part No.	Description			Remark
R212	1-216-081-00	METAL CHIP	22K	5%	1/10W
R218	1-216-081-00	METAL CHIP	22K	5%	1/10W
R251	1-216-073-00	METAL CHIP	10K	5%	1/10W
R252	1-216-073-00	METAL CHIP	10K	5%	1/10W
R902	1-216-025-00	METAL CHIP	100	5%	1/10W

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A-6727-137-A RP-63 BOARD, COMPLETE

****

(Ref.No 1,000 Series)

< CAPACITOR >

Ref. No.	Part No.	Description			Remark
C101	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C102	1-124-242-00	ELECT	33uF	20%	25V
C103	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C104	1-126-301-11	ELECT	1uF	20%	50V
C106	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C107	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C108	1-124-455-00	ELECT	100uF	20%	16V
C109	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C110	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C111	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C112	1-126-157-11	ELECT	10uF	20%	16V
C113	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C114	1-126-301-11	ELECT	1uF	20%	50V
C115	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C116	1-163-113-00	CERAMIC CHIP	68PF	5%	50V
C117	1-163-113-00	CERAMIC CHIP	68PF	5%	50V
C118	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C119	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C120	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C121	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C122	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C123	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C801	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C802	1-126-154-11	ELECT	47uF	20%	6.3V
C803	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C804	1-124-464-11	ELECT	0.22uF	20%	50V
C805	1-163-099-00	CERAMIC CHIP	18PF	5%	50V
C806	1-163-103-00	CERAMIC CHIP	27PF	5%	50V
C807	1-124-464-11	ELECT	0.22uF	20%	50V
C808	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C809	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C810	1-124-464-11	ELECT	0.22uF	20%	50V
C811	1-163-103-00	CERAMIC CHIP	27PF	5%	50V
C812	1-163-099-00	CERAMIC CHIP	18PF	5%	50V
C813	1-124-464-11	ELECT	0.22uF	20%	50V
C814	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C815	1-162-945-11	CERAMIC CHIP	22PF	5%	50V
C816	1-124-463-00	ELECT	0.1uF	20%	50V
C817	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C818	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C819	1-163-131-00	CERAMIC CHIP	390PF	5%	50V
C820	1-164-161-11	CERAMIC CHIP	0.0022uF	10%	100V
C821	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C822	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C823	1-163-107-00	CERAMIC CHIP	39PF	5%	50V
C824	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C825	1-163-115-00	CERAMIC CHIP	82PF	5%	50V
C826	1-163-113-00	CERAMIC CHIP	68PF	5%	50V
C827	1-163-129-00	CERAMIC CHIP	330PF	5%	50V
C828	1-126-154-11	ELECT	47uF	20%	6.3V
C829	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C831	1-126-154-11	ELECT	47uF	20%	6.3V
C832	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C833	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C834	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C835	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C836	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C838	1-163-097-00	CERAMIC CHIP	15PF	5%	50V
C850	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C851	1-163-121-00	CERAMIC CHIP	150PF	5%	50V
C852	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C853	1-163-121-00	CERAMIC CHIP	150PF	5%	50V
C854	1-163-109-00	CERAMIC CHIP	47PF	5%	50V
C855	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C856	1-126-157-11	ELECT	10uF	20%	16V
C857	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C858	1-163-038-00	CERAMIC CHIP	0.1uF		25V

< CONNECTOR >

Ref. No.	Part No.	Description			Remark
CN101	1-506-487-11	CONNECTOR 8P, MALE			
CN801	1-565-759-11	CONNECTOR, BOARD TO BOARD 13P			
CN802	1-506-490-21	PIN, CONNECTOR 11P			
CN803	1-506-486-11	PIN, CONNECTOR 7P			

Ref. No.	Part No.	Description	Remark
CN804	* 1-564-031-00	PIN, CONNECTOR 6P	

< DIODE >

Ref. No.	Part No.	Description	Remark
D102	8-719-400-18	DIODE MA152WK	
D801	8-719-400-18	DIODE MA152WK	
D802	8-719-400-18	DIODE MA152WK	
D803	8-719-400-18	DIODE MA152WK	

< IC >

Ref. No.	Part No.	Description	Remark
IC101	8-759-320-55	IC HA12115MP	
IC801	8-759-320-52	IC HA118019NT	

< COIL >

Ref. No.	Part No.	Description	Remark
L101	1-408-982-11	INDUCTOR 100uH	
L102	1-408-982-11	INDUCTOR 100uH	
L801	1-408-982-11	INDUCTOR 100uH	
L802	1-408-975-21	INDUCTOR 27uH	
L803	1-408-970-21	INDUCTOR 10uH	
L804	1-408-985-21	INDUCTOR 180uH	
L805	1-408-982-11	INDUCTOR 100uH	
L806	1-408-982-11	INDUCTOR 100uH	
L807	1-408-977-21	INDUCTOR 39uH	
L808	1-408-973-21	INDUCTOR 18uH	
L809	1-408-973-21	INDUCTOR 18uH	
L850	1-408-972-21	INDUCTOR 15uH	
L851	1-408-982-11	INDUCTOR 100uH	

< TRANSISTOR >

Ref. No.	Part No.	Description	Remark
Q101	8-729-216-22	TRANSISTOR 2SA1162	
Q801	8-729-216-22	TRANSISTOR 2SA1162	
Q802	**8-729-120-28**	**TRANSISTOR 2SC1623-L5L6**	
Q803	**8-729-120-28**	**TRANSISTOR 2SC1623-L5L6**	
Q804	8-729-901-01	TRANSISTOR DTC144EK	
Q805	8-729-901-01	TRANSISTOR DTC144EK	
Q806	8-729-901-01	TRANSISTOR DTC144EK	
Q850	8-729-301-98	TRANSISTOR 2SB1000A-L	
Q851	8-729-901-01	TRANSISTOR DTC144EK	
Q852	8-729-216-22	TRANSISTOR 2SA1162	
Q853	8-729-216-22	TRANSISTOR 2SA1162	
Q854	8-729-901-01	TRANSISTOR DTC144EK	

< RESISTOR >

Ref. No.	Part No.	Description				Remark
R101	1-216-019-00	METAL CHIP	56	5%	1/10W	
R102	1-216-003-11	METAL GLAZE	12	5%	1/10W	
R104	1-216-079-00	METAL CHIP	18K	5%	1/10W	
R105	1-216-304-11	METAL CHIP	3.3	5%	1/10W	
R106	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R107	1-216-304-11	METAL CHIP	3.3	5%	1/10W	
R108	1-216-061-00	METAL CHIP	3.3K	5%	1/10W	
R110	1-216-295-00	METAL CHIP	0	5%	1/10W	
R111	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	
R120	1-216-295-00	METAL CHIP	0	5%	1/10W	
R124	1-216-295-00	METAL CHIP	0	5%	1/10W	
R140	1-216-295-00	METAL CHIP	0	5%	1/10W	
R141	1-216-011-00	METAL CHIP	27	5%	1/10W	
R801	1-216-025-00	METAL CHIP	100	5%	1/10W	
R802	1-216-025-00	METAL CHIP	100	5%	1/10W	
R803	1-216-021-00	METAL CHIP	68	5%	1/10W	
R804	1-216-025-00	METAL CHIP	100	5%	1/10W	
R805	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R806	1-216-113-00	METAL CHIP	470K	5%	1/10W	
R807	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R808	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R809	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R810	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R811	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R812	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	
R813	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	
R814	1-216-039-00	METAL CHIP	390	5%	1/10W	
R815	1-216-039-00	METAL CHIP	390	5%	1/10W	
R816	1-216-047-00	METAL CHIP	820	5%	1/10W	
R817	1-216-067-00	METAL CHIP	5.6K	5%	1/10W	
R818	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	
R819	1-216-041-00	METAL CHIP	470	5%	1/10W	
R820	1-216-045-00	METAL CHIP	680	5%	1/10W	
R821	1-216-043-00	METAL CHIP	560	5%	1/10W	
R822	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R823	1-216-047-00	METAL CHIP	820	5%	1/10W	
R824	1-216-051-00	METAL CHIP	1.2K	5%	1/10W	
R826	1-216-109-00	METAL CHIP	330K	5%	1/10W	
R827	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R828	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	
R829	1-216-055-00	METAL CHIP	1.8K	5%	1/10W	
R830	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R831	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R832	1-216-055-00	METAL CHIP	1.8K	5%	1/10W	
R833	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R850	1-216-067-00	METAL CHIP	5.6K	5%	1/10W	
R851	1-216-043-00	METAL CHIP	560	5%	1/10W	
R852	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R853	1-216-047-00	METAL CHIP	820	5%	1/10W	
R854	1-216-089-00	METAL CHIP	47K	5%	1/10W	
R855	1-216-093-00	METAL CHIP	68K	5%	1/10W	
R856	1-216-748-11	METAL CHIP	39K	5%	1/10W	
R857	1-216-069-00	METAL CHIP	6.8K	5%	1/10W	

Ref. No.	Part No.	Description	Remark
		< SWITCH >	
SW801	1-570-856-11	SWITCH, SLIDE	

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* 1-635-218-21 TK-12 BOARD
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Ref. No.	Part No.	Description	Remark
		< CONNECTOR >	
CN201	1-563-618-11	CONNECTOR, FLEXIBLE 15P	
CN202	1-569-672-11	CONNECTOR, BOARD TO BOARD 16P	

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A-6721-369-A TU-120 BOARD, COMPLETE (SLV-715)
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A-6721-372-A TU-120 BOARD, COMPLETE (SLV-715VP)
****
A-6721-375-A TU-120 BOARD, COMPLETE (SLV-715UB)
****
(Ref. No 11,000 Series)

Ref. No.	Part No.	Description	Remark
		< CAPACITOR >	
C001	1-124-477-11	ELECT 47uF 20% 25V	
C002	1-126-163-11	ELECT 4.7uF 20% 50V	
C003	1-163-009-11	CERAMIC CHIP 0.001uF 10% 50V	
C004	1-126-233-11	ELECT 22uF 20% 50V	
C005	1-126-103-11	ELECT 470uF 20% 16V	
C006	1-124-927-11	ELECT 4.7uF 20% 100V	
C008	1-163-103-00	CERAMIC CHIP 27PF 5% 50V	
C009	1-163-123-00	CERAMIC CHIP 180PF 5% 50V	
C010	1-124-477-11	ELECT 47uF 20% 25V	
C011	1-124-477-11	ELECT 47uF 20% 16V	(SLV-715/VP)
C013	1-124-477-11	ELECT 47uF 20% 16V	(SLV-715/VP)
C015	1-124-907-11	ELECT 10uF 20% 50V	
C016	1-124-907-11	ELECT 10uF 20% 50V	
C017	1-124-907-11	ELECT 10uF 20% 50V	
C018	1-124-477-11	ELECT 47uF 20% 25V	
C019	1-164-161-11	CERAMIC CHIP 0.0022uF 10% 100V	
C101	1-163-001-11	CERAMIC CHIP 220PF 10% 50V	
C104	1-164-161-11	CERAMIC CHIP 0.0022uF 10% 100V	
		< CONNECTOR >	
CN001	1-568-074-11	CONNECTOR (RECEPTALE) 10P	
CN002	1-568-075-11	CONNECTOR (RECEPTALE) 12P	
CN003	1-506-487-11	PIN, CONNECTOR 8P	(SLV-715UB)
CN004	1-506-487-11	PIN, CONNECTOR 8P	(SLV-715UB)
		< DIODE >	
D001	⚠ 8-719-110-78	DIODE RD33ES-B2	

Ref. No.	Part No.	Description	Remark
D014	8-719-911-19	DIODE 1SS119	
		< IF BLOCK >	
IF001	⚠ 1-466-145-11	IF BLOCK (IFX-389)	(SLV-715VP)
IF001	⚠ 1-466-166-11	IF BLOCK (IFX-395C)	(SLV-715UB)
IF001	⚠ 1-466-167-11	IF BLOCK (IFX-389C)	(SLV-715)
		< JUMPER RESISTOR >	
JR007	1-216-295-00	METAL CHIP 0 5% 1/10W	
JR009	1-216-295-00	METAL CHIP 0 5% 1/10W	
JR101	1-216-295-00	METAL CHIP 0 5% 1/10W	
JR201	1-216-295-00	METAL CHIP 0 5% 1/10W	
		< COIL >	
L001	1-408-417-00	INDUCTOR 47uH	
L002	1-408-413-00	INDUCTOR 22uH	
L003	1-408-409-00	INDUCTOR 10uH	
L004	1-408-409-00	INDUCTOR 10uH	(SLV-715/VP)
L005	1-408-409-00	INDUCTOR 10uH	
L032	1-410-316-11	INDUCTOR 1uH	
L033	1-410-316-11	INDUCTOR 1uH	
L035	1-410-316-11	INDUCTOR 1uH	
		< DECORDER BLOCK >	
MPX001	⚠ 1-466-144-11	DECORDER BLOCK (MPL-389)	(SLV-715/VP)
		< TRANSISTOR >	
Q001	⚠ 8-729-120-28	TRANSISTOR 2SC2412K-R	
Q003	8-729-120-28	TRANSISTOR 2SC2412K-R	
Q004	8-729-900-98	TRANSISTOR DTC143TK	
Q005	8-729-120-28	TRANSISTOR 2SC2412K-R	
Q101	8-729-120-28	TRANSISTOR 2SC2412K-R	
		< RESISTOR >	
R002	1-216-053-00	METAL CHIP 1.5K 5% 1/10W	
R004	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R005	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R006	1-216-025-00	METAL CHIP 100 5% 1/10W	
R008	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
R009	1-216-073-00	METAL CHIP 10K 5% 1/10W	(SLV-715/VP)
R009	1-216-295-00	METAL CHIP 0 5% 1/10W	(SLV-715UB)
R011	1-216-073-00	METAL CHIP 10K 5% 1/10W	(SLV-715/VP)
R012	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	(SLV-715/VP)
R013	1-216-069-00	METAL CHIP 6.8K 5% 1/10W	
R014	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	(SLV-715/VP)
R015	1-216-069-00	METAL CHIP 6.8K 5% 1/10W	
R016	1-216-071-00	METAL CHIP 8.2K 5% 1/10W	
R017	1-216-071-00	METAL CHIP 8.2K 5% 1/10W	
R021	1-216-049-00	METAL CHIP 1K 5% 1/10W	

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Ref. No.	Part No.	Description	Remark
R023	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R024	1-216-295-00	METAL CHIP 0 5% 1/10W	(SLV-715UB)
R025	1-216-295-00	METAL CHIP 0 5% 1/10W	(SLV-715UB)
R026	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R102	1-216-049-00	METAL CHIP 1K 5% 1/10W	
		< VARIABLE RESISTOR >	
RV001	1-241-080-11	RES, ADJ, CARBON 10K	(SLV-715/VP)
		< TUNER >	
TU001	⚠ 1-465-260-11	TUNER, ET (BTP-2C401)	(SLV-715/VP)
TU001	⚠ 1-465-262-11	TUNER, ET (BTP-2U601)	(SLV-715UB)

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* 1-637-558-11 VI-97 BOARD (Ref.No 1,000 Series)
****

Ref. No.	Part No.	Description	Remark
		< CAPACITOR >	
C001	1-124-589-11	ELECT 47uF 20% 16V	
C002	1-126-096-11	ELECT 10uF 20% 35V	
C004	1-161-379-00	CERAMIC 0.01uF 20% 25V	
C005	1-126-103-11	ELECT 470uF 20% 16V	
		< CONNECTOR >	
CN301	1-563-599-11	CONNECTOR, FLEXIBLE 22P	
CN302	1-569-335-11	CONNECTOR, BOARD TO BOARD 9P	
CN303	1-569-735-11	CONNECTOR, BOARD TO BOARD 11P	
		< IC >	
IC001	8-759-800-81	IC LA7016	

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* A-6727-277-A YC-65 BOARD, COMPLETE (SLV-715/UB)
****
* A-6727-281-A YC-65 BOARD, COMPLETE (SLV-715VP)
****
(Ref.No 2,000 Series)

Ref. No.	Part No.	Description	Remark
	3-729-971-01	COVER, VOLUME	
		< CAPACITOR >	
C701	1-164-182-11	CERAMIC CHIP 0.0033uF 10% 50V	
C702	1-164-232-11	CERAMIC CHIP 0.01uF 50V	
C703	1-126-151-11	ELECT, NONPOLAR 4.7uF 20% 16V	
C704	1-126-233-11	ELECT 22uF 20% 50V	
C705	1-163-038-00	CERAMIC CHIP 0.1uF 25V	
C706	1-124-927-11	ELECT 4.7uF 20% 100V	
C707	1-124-927-11	ELECT 4.7uF 20% 100V	
C708	1-163-093-00	CERAMIC CHIP 10PF 5% 50V	
C709	1-124-442-00	ELECT 330uF 20% 6.3V	
C710	1-163-035-00	CERAMIC CHIP 0.047uF 50V	
C711	1-163-129-00	CERAMIC CHIP 330PF 5% 50V	
C712	1-163-131-00	CERAMIC CHIP 390PF 5% 50V	
C713	1-163-139-00	CERAMIC CHIP 820PF 5% 50V	
C714	1-164-232-11	CERAMIC CHIP 0.01uF 50V	
C715	1-164-232-11	CERAMIC CHIP 0.01uF 50V	
C716	1-163-038-00	CERAMIC CHIP 0.1uF 25V	
C718	1-124-927-11	ELECT 4.7uF 20% 100V	
C723	1-164-232-11	CERAMIC CHIP 0.01uF 50V	
C724	1-163-033-00	CERAMIC CHIP 0.022uF 50V	
C725	1-164-232-11	CERAMIC CHIP 0.01uF 50V	
C726	1-164-232-11	CERAMIC CHIP 0.01uF 50V	
C727	1-164-232-11	CERAMIC CHIP 0.01uF 50V	
C728	1-163-109-00	CERAMIC CHIP 47PF 5% 50V	
C729	1-163-097-00	CERAMIC CHIP 15PF 5% 50V	
C730	1-164-232-11	CERAMIC CHIP 0.01uF 50V	
C731	1-124-443-00	ELECT 100uF 20% 10V	
C732	1-163-115-00	CERAMIC CHIP 82PF 5% 50V	
C733	1-163-105-00	CERAMIC CHIP 33PF 5% 50V	
C734	1-163-133-00	CERAMIC CHIP 470PF 5% 50V	
C735	1-163-038-00	CERAMIC CHIP 0.1uF 25V	
C736	1-163-117-00	CERAMIC CHIP 100PF 5% 50V	
C737	1-164-232-11	CERAMIC CHIP 0.01uF 50V	
C738	1-124-925-11	ELECT 2.2uF 20% 100V	
C739	1-163-121-00	CERAMIC CHIP 150PF 5% 50V	
C741	1-124-126-00	ELECT 47uF 20% 10V	
C743	1-163-038-00	CERAMIC CHIP 0.1uF 25V	
C744	1-124-126-00	ELECT 47uF 20% 10V	
C746	1-164-232-11	CERAMIC CHIP 0.01uF 50V	
C747	1-163-038-00	CERAMIC CHIP 0.1uF 25V	
C749	1-163-038-00	CERAMIC CHIP 0.1uF 25V	
C750	1-164-232-11	CERAMIC CHIP 0.01uF 50V	
C751	1-163-038-00	CERAMIC CHIP 0.1uF 25V	
C753	1-124-126-00	ELECT 47uF 20% 10V	
C754	1-163-105-00	CERAMIC CHIP 33PF 5% 50V	
C755	1-163-119-00	CERAMIC CHIP 120PF 5% 50V	
C756	1-163-125-00	CERAMIC CHIP 220PF 5% 50V	
C760	1-164-232-11	CERAMIC CHIP 0.01uF 50V	
C761	1-124-034-51	ELECT 33uF 20% 16V	
C763	1-124-927-11	ELECT 4.7uF 20% 100V	
C764	1-163-038-00	CERAMIC CHIP 0.1uF 25V	
C770	1-163-125-00	CERAMIC CHIP 220PF 5% 50V	
C772	1-163-103-00	CERAMIC CHIP 27PF 5% 50V	
C780	1-163-038-00	CERAMIC CHIP 0.1uF 25V	
C782	1-163-113-00	CERAMIC CHIP 68PF 5% 50V	
C783	1-163-129-00	CERAMIC CHIP 330PF 5% 50V	
C785	1-164-232-11	CERAMIC CHIP 0.01uF 50V	

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

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Ref. No.	Part No.	Description			Remark
C790	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C801	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C802	1-124-442-00	ELECT	330uF	20%	6.3V
C803	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C804	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C805	1-163-033-00	CERAMIC CHIP	0.022uF		50V
C806	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C807	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C808	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C809	1-163-129-00	CERAMIC CHIP	330PF	5%	50V
C810	1-163-129-00	CERAMIC CHIP	330PF	5%	50V
C811	1-163-105-00	CERAMIC CHIP	33PF	5%	50V
C812	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C813	1-124-443-00	ELECT	100uF	20%	10V
C814	1-124-443-00	ELECT	100uF	20%	10V
C815	1-164-330-21	CERAMIC CHIP	0.22uF	10%	16V
C816	1-124-927-11	ELECT	4.7uF	20%	100V
C817	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C818	1-163-036-00	CERAMIC CHIP	0.068uF		50V
C819	1-164-492-11	CERAMIC CHIP	0.15uF	10%	16V
C820	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C823	1-124-927-11	ELECT	4.7uF	20%	100V
C825	1-163-077-00	CERAMIC CHIP	0.1uF	10%	25V
C826	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C827	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C828	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C829	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C830	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C831	1-163-121-00	CERAMIC CHIP	150PF	5%	50V
C832	1-124-903-11	ELECT	1uF	20%	50V
C833	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C834	1-123-382-00	ELECT	3.3uF	20%	100V
C835	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C836	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C837	1-163-099-00	CERAMIC CHIP	18PF	5%	50V
C840	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C842	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C858	1-163-119-00	CERAMIC CHIP	120PF	5%	50V
C859	1-163-129-00	CERAMIC CHIP	330PF	5%	50V
C861	1-164-182-11	CERAMIC CHIP	0.0033uF	10%	50V
C862	1-163-121-00	CERAMIC CHIP	150PF	5%	50V
C863	1-124-903-11	ELECT	1uF	20%	50V
C864	1-124-126-00	ELECT	47uF	20%	10V
C866	1-124-903-11	ELECT	1uF	20%	50V
C867	1-124-907-11	ELECT	10uF	20%	50V
C868	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C869	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C870	1-163-103-00	CERAMIC CHIP	27PF	5%	50V
C871	1-163-103-00	CERAMIC CHIP	27PF	5%	50V

Ref. No.	Part No.	Description			Remark
C872	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C873	1-163-101-00	CERAMIC CHIP	22PF	5%	50V
C874	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C875	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C876	1-108-796-11	MYLAR	0.0022uF	5%	50V
C877	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C878	1-163-213-00	CERAMIC CHIP	0.0022uF	5%	50V
C879	1-163-035-00	CERAMIC CHIP	0.047uF		50V
C880	1-124-903-11	ELECT	1uF	20%	50V
C881	1-124-907-11	ELECT	10uF	20%	50V
C882	1-123-382-00	ELECT	3.3uF	20%	100V
C883	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C884	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C885	1-124-907-11	ELECT	10uF	20%	50V
C886	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C887	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C888	1-124-907-11	ELECT	10uF	20%	50V
C889	1-163-109-00	CERAMIC CHIP	47PF	5%	50V
C890	1-163-097-00	CERAMIC CHIP	15PF	5%	50V
C891	1-163-113-00	CERAMIC CHIP	68PF	5%	50V
C892	1-163-113-00	CERAMIC CHIP	68PF	5%	50V
C893	1-124-034-51	ELECT	33uF	20%	16V
C894	1-124-034-51	ELECT	33uF	20%	16V
C895	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C896	1-124-034-51	ELECT	33uF	20%	16V
C897	1-124-927-11	ELECT	4.7uF	20%	100V
C898	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C899	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V

< CONNECTOR >

CN701	1-506-490-21	PIN, CONNECTOR 11P	
CN702	1-506-490-21	PIN, CONNECTOR 11P	
CN703	* 1-564-019-31	PIN, CONNECTOR 9P	

< DIODE >

D705	8-719-104-34	DIODE	1S2835-T1
D801	8-719-400-18	DIODE	MA152WK
D803	8-719-400-18	DIODE	MA152WK

< DELAY LINE >

DL801	1-415-602-11	DELAY LINE, GLASS

< FILTER >

FL701	1-236-312-11	FILTER, BAND PASS
FL801	1-239-915-11	FILTER, BAND PASS
FL802	1-236-311-11	FILTER, BAND PASS
FL803	1-527-849-00	FILTER, CERAMIC

< IC >

Ref. No.	Part No.	Description	Remark
IC701	8-759-420-07	IC AN3231K	
IC702	8-752-321-89	IC CXL5003P	
IC801	8-759-320-78	IC HA118016NT	
IC802	8-759-822-05	IC LA7213	
IC860	8-759-420-53	IC AN3592K	
IC861	8-759-991-54	IC MSM6989RS	
IC862	8-752-006-12	IC CX20061	
IC863	8-759-822-05	IC LA7213	
IC864	8-759-000-49	IC MC14066BCP	

< JUMPER RESISTOR >

Ref. No.	Part No.	Description	Remark
JR001	1-216-295-00	METAL CHIP 0 5%	1/10W
JR003	1-216-295-00	METAL CHIP 0 5%	1/10W
JR004	1-216-296-00	METAL CHIP 0 5%	1/8W
JR005	1-216-295-00	METAL CHIP 0 5%	1/10W
JR006	1-216-295-00	METAL CHIP 0 5%	1/10W
JR007	1-216-295-00	METAL CHIP 0 5%	1/10W
JR008	1-216-296-00	METAL CHIP 0 5%	1/8W
JR009	1-216-296-00	METAL CHIP 0 5%	1/8W
JR010	1-216-295-00	METAL CHIP 0 5%	1/10W
JR011	1-216-295-00	METAL CHIP 0 5%	1/10W
JR012	1-216-295-00	METAL CHIP 0 5%	1/10W
JR013	1-216-296-00	METAL CHIP 0 5%	1/8W
JR014	1-216-295-00	METAL CHIP 0 5%	1/10W
JR015	1-216-295-00	METAL CHIP 0 5%	1/10W
JR017	1-216-295-00	METAL CHIP 0 5%	1/10W
JR019	1-216-295-00	METAL CHIP 0 5%	1/10W
JR020	1-216-295-00	METAL CHIP 0 5%	1/10W
JR021	1-216-295-00	METAL CHIP 0 5%	1/10W
JR022	1-216-295-00	METAL CHIP 0 5%	1/10W
JR023	1-216-295-00	METAL CHIP 0 5%	1/10W
JR024	1-216-295-00	METAL CHIP 0 5%	1/10W
JR026	1-216-295-00	METAL CHIP 0 5%	1/10W
JR027	1-216-296-00	METAL CHIP 0 5%	1/8W
JR028	1-216-295-00	METAL CHIP 0 5%	1/10W
JR029	1-216-295-00	METAL CHIP 0 5%	1/10W
JR030	1-216-295-00	METAL CHIP 0 5%	1/10W
JR031	1-216-295-00	METAL CHIP 0 5%	1/10W
JR033	1-216-295-00	METAL CHIP 0 5%	1/10W
JR034	1-216-295-00	METAL CHIP 0 5%	1/10W
JR035	1-216-295-00	METAL CHIP 0 5%	1/10W
JR036	1-216-295-00	METAL CHIP 0 5%	1/10W
JR037	1-216-296-00	METAL CHIP 0 5%	1/8W
JR039	1-216-296-00	METAL CHIP 0 5%	1/8W
JR040	1-216-296-00	METAL CHIP 0 5%	1/8W
JR041	1-216-295-00	METAL CHIP 0 5%	1/10W
JR042	1-216-295-00	METAL CHIP 0 5%	1/10W
JR043	1-216-295-00	METAL CHIP 0 5%	1/10W
JR044	1-216-295-00	METAL CHIP 0 5%	1/10W
JR045	1-216-295-00	METAL CHIP 0 5%	1/10W
JR046	1-216-295-00	METAL CHIP 0 5%	1/10W
JR047	1-216-295-00	METAL CHIP 0 5%	1/10W
JR048	1-216-295-00	METAL CHIP 0 5%	1/10W
JR049	1-216-295-00	METAL CHIP 0 5%	1/10W
JR050	1-216-296-00	METAL CHIP 0 5%	1/8W
JR051	1-216-295-00	METAL CHIP 0 5%	1/10W
JR052	1-216-295-00	METAL CHIP 0 5%	1/10W
JR053	1-216-295-00	METAL CHIP 0 5%	1/10W
JR054	1-216-296-00	METAL CHIP 0 5%	1/8W
JR055	1-216-295-00	METAL CHIP 0 5%	1/10W
JR056	1-216-295-00	METAL CHIP 0 5%	1/10W
JR057	1-216-296-00	METAL CHIP 0 5%	1/8W
JR058	1-216-295-00	METAL CHIP 0 5%	1/10W
JR059	1-216-295-00	METAL CHIP 0 5%	1/10W
JR060	1-216-296-00	METAL CHIP 0 5%	1/8W
JR061	1-216-295-00	METAL CHIP 0 5%	1/10W
JR062	1-216-295-00	METAL CHIP 0 5%	1/10W
JR063	1-216-296-00	METAL CHIP 0 5%	1/8W
JR064	1-216-295-00	METAL CHIP 0 5%	1/10W

< COIL >

Ref. No.	Part No.	Description	Remark
L701	1-407-169-XX	INDUCTOR 100uH	
L704	1-408-981-21	INDUCTOR 82uH	
L705	1-408-983-21	INDUCTOR 120uH	
L706	1-407-169-XX	INDUCTOR 100uH	
L707	1-407-169-XX	INDUCTOR 100uH	
L708	1-407-169-XX	INDUCTOR 100uH	
L712	1-408-971-21	INDUCTOR 12uH	
L713	1-408-974-21	INDUCTOR 22uH	
L720	1-408-978-21	INDUCTOR 47uH	
L726	1-408-985-21	INDUCTOR 180uH	
L802	1-408-987-21	INDUCTOR 330uH	
L803	1-408-948-00	INDUCTOR 220uH	
L805	1-408-970-21	INDUCTOR 10uH	
L806	1-408-969-21	INDUCTOR 8.2uH	
L807	1-408-969-21	INDUCTOR 8.2uH	
L809	1-407-499-00	INDUCTOR 3.9mH	
L861	1-408-976-21	INDUCTOR 33uH	
L862	1-408-970-21	INDUCTOR 10uH	
L882	1-408-972-21	INDUCTOR 15uH	
L883	1-408-975-21	INDUCTOR 27uH	

< TRANSISTOR >

Ref. No.	Part No.	Description	Remark
Q702	8-729-216-22	TRANSISTOR 2SA1162	
Q703	8-729-901-47	TRANSISTOR DTA143EK	
Q704	8-729-901-01	TRANSISTOR DTC144EK	

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Ref. No.	Part No.	Description				Remark
Q705	8-729-100-66	TRANSISTOR	2SC1623			
Q706	8-729-216-22	TRANSISTOR	2SA1162			
Q707	8-729-100-66	TRANSISTOR	2SC1623			
Q709	8-729-100-66	TRANSISTOR	2SC1623			
Q711	8-729-216-22	TRANSISTOR	2SA1162			
Q715	8-729-901-01	TRANSISTOR	DTC144EK			
Q716	8-729-901-01	TRANSISTOR	DTC144EK			
Q717	8-729-100-66	TRANSISTOR	2SC1623			
Q719	8-729-216-22	TRANSISTOR	2SA1162			
Q721	8-729-100-66	TRANSISTOR	2SC1623			
Q722	8-729-901-01	TRANSISTOR	DTC144EK			
Q723	8-729-901-01	TRANSISTOR	DTC144EK			
Q801	8-729-100-66	TRANSISTOR	2SC1623			
Q802	8-729-901-01	TRANSISTOR	DTC144EK	(SLV-715VP)		
Q803	8-729-100-66	TRANSISTOR	2SC1623			
Q804	8-729-900-53	TRANSISTOR	DTC114EK			
Q805	8-729-216-22	TRANSISTOR	2SA1162			
Q806	8-729-901-01	TRANSISTOR	DTC144EK			
Q807	8-729-100-66	TRANSISTOR	2SC1623	(SLV-715VP)		
Q808	8-729-100-66	TRANSISTOR	2SC1623			
Q809	8-729-100-66	TRANSISTOR	2SC1623			
Q810	8-729-901-04	TRANSISTOR	DTA114EK			
Q811	8-729-216-22	TRANSISTOR	2SA1162			
Q812	8-729-100-66	TRANSISTOR	2SC1623			
Q852	8-729-901-01	TRANSISTOR	DTC144EK	(SLV-715VP)		
Q860	8-729-809-77	TRANSISTOR	2SC3142-J4			
Q862	8-729-901-01	TRANSISTOR	DTC144EK			
Q880	8-729-100-66	TRANSISTOR	2SC1623			
Q881	8-729-100-66	TRANSISTOR	2SC1623			
Q882	8-729-216-22	TRANSISTOR	2SA1162			
Q883	8-729-100-66	TRANSISTOR	2SC1623			

< RESISTOR >

Ref. No.	Part No.	Description				Remark
R701	1-216-109-00	METAL CHIP	330K	5%	1/10W	
R702	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	
R703	1-216-071-00	METAL CHIP	8.2K	5%	1/10W	
R704	1-216-069-00	METAL CHIP	6.8K	5%	1/10W	
R705	1-216-067-00	METAL CHIP	5.6K	5%	1/10W	
R706	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	
R707	1-216-052-00	METAL CHIP	1.3K	5%	1/10W	
R708	1-216-036-00	METAL CHIP	300	5%	1/10W	
R709	1-216-061-00	METAL CHIP	3.3K	5%	1/10W	
R710	1-216-091-00	METAL CHIP	56K	5%	1/10W	
R711	1-216-295-00	METAL CHIP	0	5%	1/10W	
R712	1-216-065-00	METAL CHIP	4.7K	5%	1/10W	
R713	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	
R714	1-216-065-00	METAL CHIP	4.7K	5%	1/10W	
R717	1-216-055-00	METAL CHIP	1.8K	5%	1/10W	
R719	1-216-067-00	METAL CHIP	5.6K	5%	1/10W	
R720	1-216-063-00	METAL CHIP	3.9K	5%	1/10W	
R722	1-216-053-00	METAL CHIP	1.5K	5%	1/10W	
R723	1-216-079-00	METAL CHIP	18K	5%	1/10W	
R724	1-216-053-00	METAL CHIP	1.5K	5%	1/10W	
R725	1-216-039-00	METAL CHIP	390	5%	1/10W	
R726	1-216-047-00	METAL CHIP	820	5%	1/10W	
R727	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R728	1-216-115-00	METAL CHIP	560K	5%	1/10W	
R729	1-216-089-00	METAL CHIP	47K	5%	1/10W	
R730	1-216-089-00	METAL CHIP	47K	5%	1/10W	
R731	1-216-033-00	METAL CHIP	220	5%	1/10W	
R733	1-216-041-00	METAL CHIP	470	5%	1/10W	
R734	1-216-083-00	METAL CHIP	27K	5%	1/10W	
R735	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R736	1-216-033-00	METAL CHIP	220	5%	1/10W	
R737	1-216-041-00	METAL CHIP	470	5%	1/10W	
R738	1-216-025-00	METAL CHIP	100	5%	1/10W	
R739	1-216-083-00	METAL CHIP	27K	5%	1/10W	
R740	1-216-083-00	METAL CHIP	27K	5%	1/10W	
R741	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R742	1-216-295-00	METAL CHIP	0	5%	1/10W	
R743	1-216-041-00	METAL CHIP	470	5%	1/10W	
R744	1-216-121-00	METAL CHIP	1M	5%	1/10W	
R745	1-216-041-00	METAL CHIP	470	5%	1/10W	
R749	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R750	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R751	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R752	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R754	1-216-039-00	METAL CHIP	390	5%	1/10W	
R755	1-216-129-00	METAL CHIP	2.2M	5%	1/10W	
R761	1-216-089-00	METAL CHIP	47K	5%	1/10W	
R762	1-216-295-00	METAL CHIP	0	5%	1/10W	
R763	1-216-061-00	METAL CHIP	3.3K	5%	1/10W	
R764	1-216-061-00	METAL CHIP	3.3K	5%	1/10W	
R768	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R769	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R772	1-216-041-00	METAL CHIP	470	5%	1/10W	
R773	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R774	1-216-085-00	METAL CHIP	33K	5%	1/10W	
R775	1-216-085-00	METAL CHIP	33K	5%	1/10W	
R776	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R777	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R778	1-216-044-00	METAL CHIP	620	5%	1/10W	
R779	1-216-041-00	METAL CHIP	470	5%	1/10W	
R780	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R781	1-216-059-00	METAL CHIP	2.7K	5%	1/10W	
R801	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R802	1-216-049-00	METAL CHIP	1K	5%	1/10W	

Ref. No.	Part No.	Description	Remark
R803	1-216-041-00	METAL CHIP 470 5% 1/10W	
R804	1-216-049-00	METAL CHIP 1K 5% 1/10W	(SLV-715VP)
R805	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R806	1-216-069-00	METAL CHIP 6.8K 5% 1/10W	
R807	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R808	1-216-051-00	METAL CHIP 1.2K 5% 1/10W	
R809	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R810	1-216-045-00	METAL CHIP 680 5% 1/10W	
R811	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R812	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
R813	1-216-041-00	METAL CHIP 470 5% 1/10W	
R814	1-216-045-00	METAL CHIP 680 5% 1/10W	
R816	1-216-097-00	METAL CHIP 100K 5% 1/10W	
R818	1-216-039-00	METAL CHIP 390 5% 1/10W	
R819	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
R820	1-216-069-00	METAL CHIP 6.8K 5% 1/10W	
R822	1-216-055-00	METAL CHIP 1.8K 5% 1/10W	
R823	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
R824	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R828	1-216-035-00	METAL CHIP 270 5% 1/10W	
R829	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R830	1-216-085-00	METAL CHIP 33K 5% 1/10W	
R831	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R832	1-216-033-00	METAL CHIP 220 5% 1/10W	
R833	1-216-037-00	METAL CHIP 330 5% 1/10W	
R834	1-216-059-00	METAL CHIP 2.7K 5% 1/10W	
R835	1-216-037-00	METAL CHIP 330 5% 1/10W	
R836	1-216-037-00	METAL CHIP 330 5% 1/10W	
R837	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
R838	1-216-089-00	METAL CHIP 47K 5% 1/10W	
R839	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R840	1-216-047-00	METAL CHIP 820 5% 1/10W	
R841	1-216-047-00	METAL CHIP 820 5% 1/10W	
R843	1-216-041-00	METAL CHIP 470 5% 1/10W	
R844	1-216-059-00	METAL CHIP 2.7K 5% 1/10W	
R852	1-216-049-00	METAL CHIP 1K 5% 1/10W	(SLV-715VP)
R853	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R855	1-216-037-00	METAL CHIP 330 5% 1/10W	
R856	1-216-105-00	METAL CHIP 220K 5% 1/10W	
R857	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R858	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R859	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
R860	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R862	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
R863	1-216-075-00	METAL CHIP 12K 5% 1/10W	
R864	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
R865	1-216-097-00	METAL CHIP 100K 5% 1/10W	
R866	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R867	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R868	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
R869	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R870	1-216-085-00	METAL CHIP 33K 5% 1/10W	
R872	1-216-033-00	METAL CHIP 220 5% 1/10W	
R873	1-216-103-00	METAL CHIP 180K 5% 1/10W	
R874	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R875	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R876	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R877	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R880	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R881	1-216-037-00	METAL CHIP 330 5% 1/10W	
R882	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R883	1-216-053-00	METAL CHIP 1.5K 5% 1/10W	
R884	1-216-748-11	METAL CHIP 39K 5% 1/10W	
R885	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R886	1-216-041-00	METAL CHIP 470 5% 1/10W	
R887	1-216-033-00	METAL CHIP 220 5% 1/10W	
R888	1-216-045-00	METAL CHIP 680 5% 1/10W	
R889	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R890	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R891	1-216-105-00	METAL CHIP 220K 5% 1/10W	
R892	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R893	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R894	1-216-001-00	METAL CHIP 10 5% 1/10W	
R895	1-249-413-11	CARBON 470 5% 1/4W	
R900	1-216-143-00	METAL CHIP 2.2 5% 1/4W	(SLV-715VP)

< VARIABLE RESISTOR >

Ref. No.	Part No.	Description	Remark
RV701	1-237-723-11	RES, ADJ, CARBON 4.7K	
RV702	1-237-723-11	RES, ADJ, CARBON 4.7K	
RV703	1-230-523-11	RES, ADJ, METAL 10K	
RV704	1-238-167-11	RES, ADJ, CARBON 22K	
RV705	1-238-167-11	RES, ADJ, CARBON 22K	
RV707	1-238-166-11	RES, ADJ, CARBON 1K	
RV708	1-230-523-11	RES, ADJ, METAL 10K	
RV710	1-230-494-11	RES, ADJ, CARBON 1K	
RV801	1-238-166-11	RES, ADJ, CARBON 1K	
RV860	1-230-527-11	RES, ADJ, METAL 100K	
RV861	1-238-166-11	RES, ADJ, CARBON 1K	

< COIL >

Ref. No.	Part No.	Description	Remark
T802	1-409-467-11	COIL (TRAP 7.8K)	

< CRYSTAL >

Ref. No.	Part No.	Description	Remark
X801	1-577-651-11	VIBRATOR, CRYSTAL (4.43MHz)	

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Ref. No.	Part No.	Description	Remark
	*A-6721-376-A	NA-7 BOARD, COMPLETE (SLV-715UB)	
		******************** (Ref. No. 9000 series)	

FILTER

Ref. No.	Part No.	Description	Remark
BP001	1-236-238-11	FILTER, BAND PASS	

CAPACITOR

Ref. No.	Part No.	Description				Remark
C001	1-164-232-11	CERAMIC CHIP	0.01MF		50V	
C002	1-124-477-11	ELECT	47MF	20%	16V	
C003	1-164-232-11	CERAMIC CHIP	0.01MF		50V	
C004	1-164-232-11	CERAMIC CHIP	0.01MF		50V	
C005	1-164-232-11	CERAMIC CHIP	0.01MF		50V	
C006	1-164-232-11	CERAMIC CHIP	0.01MF		50V	
C007	1-164-232-11	CERAMIC CHIP	0.01MF		50V	
C008	1-164-232-11	CERAMIC CHIP	0.01MF		50V	
C009	1-124-477-11	ELECT	47MF	20%	16V	
C010	1-164-232-11	CERAMIC CHIP	0.01MF		50V	
C011	1-124-443-00	ELECT	100MF	20%	10V	
C012	1-164-232-11	CERAMIC CHIP	0.01MF		50V	
C013	1-126-157-11	ELECT	10MF	20%	16V	
C014	1-124-465-00	ELECT	0.47MF	20%	50V	
C015	1-124-465-00	ELECT	0.47MF	20%	50V	
C016	1-163-099-00	CERAMIC CHIP	18PF	5%	50V	
C017	1-163-245-11	CERAMIC CHIP	56PF	5%	50V	
C018	1-163-099-00	CERAMIC CHIP	18PF	5%	50V	
C019	1-124-465-00	ELECT	0.47MF	20%	50V	
C020	1-164-232-11	CERAMIC CHIP	0.01MF		50V	
C021	1-163-123-00	CERAMIC CHIP	180PF	5%	50V	
C022	1-163-123-00	CERAMIC CHIP	180PF	5%	50V	
C023	1-164-232-11	CERAMIC CHIP	0.01MF		50V	
C024	1-164-232-11	CERAMIC CHIP	0.01MF		50V	
C025	1-130-495-00	MYLAR	0.1MF	5%	50V	
C026	1-130-495-00	MYLAR	0.1MF	5%	50V	
C027	1-163-245-11	CERAMIC CHIP	56PF	5%	50V	
C028	1-163-245-11	CERAMIC CHIP	56PF	5%	50V	
C029	1-130-495-00	MYLAR	0.1MF	5%	50V	
C030	1-130-495-00	MYLAR	0.1MF	5%	50V	
C031	1-163-059-00	CERAMIC CHIP	0.01MF		50V	
C032	1-164-232-11	CERAMIC CHIP	0.01MF		50V	
C033	1-164-232-11	CERAMIC CHIP	0.01MF		50V	
C034	1-124-465-00	ELECT	0.47MF	20%	50V	
C035	1-163-099-00	CERAMIC CHIP	18PF	5%	50V	
C036	1-163-245-11	CERAMIC CHIP	56PF	5%	50V	
C037	1-163-099-00	CERAMIC CHIP	18PF	5%	50V	
C038	1-124-126-00	ELECT	47MF	20%	10V	
C039	1-164-232-11	CERAMIC CHIP	0.01MF		50V	
C040	1-124-443-00	ELECT	100MF	20%	10V	
C041	1-164-232-11	CERAMIC CHIP	0.01MF		50V	
C045	1-123-875-11	ELECT	10MF	20%	50V	
C046	1-164-232-11	CERAMIC CHIP	0.01MF		50V	
C047	1-124-443-00	ELECT	100MF	20%	10V	
C051	1-163-095-00	CERAMIC CHIP	12PF	5%	50V	
C052	1-163-095-00	CERAMIC CHIP	12PF	5%	50V	
C053	1-164-232-11	CERAMIC CHIP	0.01MF		50V	
C054	1-124-443-00	ELECT	100MF	20%	10V	
C055	1-164-232-11	CERAMIC CHIP	0.01MF		50V	
C056	1-124-443-00	ELECT	100MF	20%	10V	
C057	1-130-469-00	MYLAR	680PF	5%	50V	
C058	1-126-301-11	ELECT	1MF	20%	50V	
C059	1-124-126-00	ELECT	47MF	20%	10V	
C060	1-124-443-00	ELECT	100MF	20%	10V	
C061	1-130-471-00	MYLAR	0.001MF	5%	50V	
C062	1-124-442-00	ELECT	330MF	20%	6.3V	
C063	1-130-471-00	MYLAR	0.001MF	5%	50V	
C064	1-124-126-00	ELECT	47MF	20%	10V	
C065	1-130-469-00	MYLAR	680PF	5%	50V	
C066	1-126-301-11	ELECT	1MF	20%	50V	
C067	1-124-477-11	ELECT	47MF	20%	16V	
C068	1-164-232-11	CERAMIC CHIP	0.01MF		50V	
C069	1-126-157-11	ELECT	10MF	20%	16V	
C070	1-126-157-11	ELECT	10MF	20%	16V	
C071	1-124-477-11	ELECT	47MF	20%	16V	
C072	1-130-493-00	MYLAR	0.068MF	5%	50V	
C073	1-130-474-00	MYLAR	0.0018MF	5%	50V	
C074	1-124-477-11	ELECT	47MF	20%	16V	
C075	1-130-471-00	MYLAR	0.001MF	5%	50V	
C076	1-130-475-00	MYLAR	0.0022MF	5%	50V	
C077	1-126-151-11	ELECT	4.7MF	20%	16V	
C078	1-126-101-11	ELECT	100MF	20%	16V	
C079	1-124-477-11	ELECT	47MF	20%	16V	
C080	1-164-232-11	CERAMIC CHIP	0.01MF		50V	
C081	1-126-157-11	ELECT	10MF	20%	16V	

Ref. No.	Part No.	Description	Remark
C082	1-126-157-11	ELECT 10MF 20% 16V	
C083	1-124-477-11	ELECT 47MF 20% 16V	
C084	1-130-493-00	MYLAR 0.068MF 5% 50V	
C085	1-130-474-00	MYLAR 0.0018MF 5% 50V	
C086	1-124-477-11	ELECT 47MF 20% 16V	
C087	1-130-471-00	MYLAR 0.001MF 5% 50V	
C088	1-130-475-00	MYLAR 0.0022MF 5% 50V	
C089	1-126-151-11	ELECT 4.7MF 20% 16V	

FILTER

Ref. No.	Part No.	Description	Remark
CF001	1-409-333-00	TRAP, CERAMIC (6.0MHZ)	

CONNECTOR

Ref. No.	Part No.	Description	Remark
CN001	1-580-554-11	CONNECTOR, BOARD TO BOARD 16P	

VARIABLE CAPACITOR

Ref. No.	Part No.	Description	Remark
CV001	1-141-245-00	TRIMMER, CERAMIC 30PF	
CV002	1-141-245-00	TRIMMER, CERAMIC 30PF	

DIODE

Ref. No.	Part No.	Description	Remark
D001	8-719-801-52	DIODE 1SS190-TE85L	
D002	8-719-801-52	DIODE 1SS190-TE85L	
D003	8-719-400-18	DIODE 1S2837-T1	
D004	8-719-400-18	DIODE 1S2837-T1	
D005	8-719-400-18	DIODE 1S2837-T1	
D006	8-719-400-18	DIODE 1S2837-T1	
D007	8-719-400-18	DIODE 1S2837-T1	
D008	8-719-104-34	DIODE 1S2835-T1	

FERRITE BEAD INDUCTOR

Ref. No.	Part No.	Description	Remark
FB001	1-410-397-21	FERRITE BEAD INDUCTOR	
FB002	1-410-397-21	FERRITE BEAD INDUCTOR	
FB003	1-410-397-21	FERRITE BEAD INDUCTOR	
FB004	1-410-397-21	FERRITE BEAD INDUCTOR	
FB005	1-410-397-21	FERRITE BEAD INDUCTOR	
FB006	1-410-397-21	FERRITE BEAD INDUCTOR	

FILTER

Ref. No.	Part No.	Description	Remark
FL001	1-236-071-11	ENCAPSULATED COMPONENT	
FL002	1-236-071-11	ENCAPSULATED COMPONENT	

IC

Ref. No.	Part No.	Description	Remark
IC001	8-759-231-09	IC TA8662N	
IC002	8-759-231-28	IC TC6011N	
IC003	8-752-331-22	IC CXK5864BSP-10L	
IC004	8-759-231-29	IC TD6710AN	
IC005	8-759-900-72	IC NE5532P	
IC006	8-759-900-72	IC NE5532P	

COIL

Ref. No.	Part No.	Description	Remark
L002	1-410-072-21	INDUCTOR 820UH	
L003	1-410-072-21	INDUCTOR 820UH	
L004	1-408-970-21	INDUCTOR 10UH	
L005	1-408-970-21	INDUCTOR 10UH	
L006	1-408-989-21	INDUCTOR 470UH	
L007	1-408-989-21	INDUCTOR 470UH	

FILTER

Ref. No.	Part No.	Description	Remark
LP001	1-236-356-11	FILTER, LOW PASS	
LP002	1-236-356-11	FILTER, LOW PASS	

TRANSISTOR

Ref. No.	Part No.	Description	Remark
Q001	8-729-100-66	TRANSISTOR 2SC1623-L6	
Q002	8-729-100-66	TRANSISTOR 2SC1623-L6	
Q003	8-729-104-80	TRANSISTOR 2SC3355	
Q004	8-729-100-66	TRANSISTOR 2SC1623-L6	
Q005	8-729-100-66	TRANSISTOR 2SC1623-L6	
Q006	8-729-100-66	TRANSISTOR 2SC1623-L6	

RESISTOR

Ref. No.	Part No.	Description	Remark
R001	1-216-089-00	METAL GLAZE 47K 5% 1/10W	
R002	1-216-089-00	METAL GLAZE 47K 5% 1/10W	
R003	1-216-049-00	METAL GLAZE 1K 5% 1/10W	

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Ref. No.	Part No.	Description				Remark
R004	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R009	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R010	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R011	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R012	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R013	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R014	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W	
R015	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W	
R016	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R017	1-216-027-00	METAL GLAZE	120	5%	1/10W	
R018	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R019	1-212-873-11	FUSIBLE	47	5%	1/4W	F
R020	1-216-101-00	METAL GLAZE	150K	5%	1/10W	
R021	1-216-105-00	METAL GLAZE	220K	5%	1/10W	
R022	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R023	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R024	1-216-748-11	METAL GLAZE	39K	5%	1/10W	
R025	1-216-748-11	METAL GLAZE	39K	5%	1/10W	
R026	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R027	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R028	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R029	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R030	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R031	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R032	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R033	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R034	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R035	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R036	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R037	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R038	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R039	1-216-093-00	METAL GLAZE	68K	5%	1/10W	
R041	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R042	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R043	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R044	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R045	1-216-093-00	METAL GLAZE	68K	5%	1/10W	
R046	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R047	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R048	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R049	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R050	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R051	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R052	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	

Ref. No.	Part No.	Description				Remark
R053	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R054	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R055	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R056	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R057	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R058	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R059	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R060	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R061	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R062	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R063	1-216-093-00	METAL GLAZE	68K	5%	1/10W	
R064	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R065	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R066	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R067	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R068	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R069	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R070	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R071	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R072	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R073	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R074	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R075	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R076	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R080	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R081	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R082	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R083	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R084	1-216-296-00	METAL GLAZE	0	5%	1/8W	
R085	1-216-296-00	METAL GLAZE	0	5%	1/8W	
R086	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R087	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R088	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R089	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R090	1-216-296-00	METAL GLAZE	0	5%	1/8W	
R091	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R092	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R093	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R094	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R095	1-216-295-00	METAL GLAZE	0	5%	1/10W	

CRYSTAL

X001	1-577-251-11	VIBRATOR, CRYSTAL	6.552MHZ
X002	1-577-252-11	VIBRATOR, CRYSTAL	5.824MHZ
X003	1-577-253-11	VIBRATOR, CERAMIC	16.9MHZ

Ref. No.	Part No.	Description				Remark
	*1-632-333-11	NM-1 BOARD (SLV-715UB)				
		********** (Ref. No. 10000 series)				

CAPACITOR

Ref. No.	Part No.	Description				Remark
C001	1-123-875-11	ELECT	10MF	20%	50V	
C002	1-123-875-11	ELECT	10MF	20%	50V	
C003	1-124-589-11	ELECT	47MF	20%	16V	
C004	1-124-589-11	ELECT	47MF	20%	16V	
C009	1-123-875-11	ELECT	10MF	20%	50V	
C010	1-123-875-11	ELECT	10MF	20%	50V	

CONNECTOR

Ref. No.	Part No.	Description	Remark
CN001	1-506-487-11	PIN, CONNECTOR 8P	
CN002	1-506-487-11	PIN, CONNECTOR 8P	
CN003	1-580-555-11	CONNECTOR, BOARD TO BOARD 16P	

DIODE

Ref. No.	Part No.	Description	Remark
D002	8-719-911-19	DIODE 1SS119	
D003	8-719-911-19	DIODE 1SS119	
D010	8-719-911-19	DIODE 1SS119	

IC

Ref. No.	Part No.	Description	Remark
IC001	8-759-800-81	IC LA7016	
IC002	8-759-800-81	IC LA7016	

TRANSISTOR

Ref. No.	Part No.	Description	Remark
Q003	8-729-900-80	TRANSISTOR DTC114ES	
Q004	8-729-900-80	TRANSISTOR DTC114ES	
Q005	8-729-900-80	TRANSISTOR DTC114ES	
Q006	8-729-900-80	TRANSISTOR DTC114ES	
Q007	8-729-900-80	TRANSISTOR DTC114ES	
Q008	8-729-303-37	TRANSISTOR 2SD655E	
Q009	8-729-303-37	TRANSISTOR 2SD655E	

RESISTOR

Ref. No.	Part No.	Description				Remark
R002	1-249-429-11	METAL	10K	5%	1/4W	
R003	1-249-429-11	METAL	10K	5%	1/4W	
R004	1-249-429-11	METAL	10K	5%	1/4W	
R005	1-249-428-11	METAL	8. 2K	5%	1/4W	
R007	1-249-428-11	METAL	8. 2K	5%	1/4W	
R009	1-249-429-11	METAL	10K	5%	1/4W	
R010	1-249-429-11	METAL	10K	5%	1/4W	
R011	1-249-417-11	METAL	1K	5%	1/4W	
R012	1-249-417-11	METAL	1K	5%	1/4W	

****

Ref. No.	Part No.	Description				Remark
	*1-632-296-12	SD-4 BOARD (SLV-715VP)				
		********** (Ref. No. 5000 series)				

CAPACITOR

Ref. No.	Part No.	Description				Remark
C850	1-130-474-11	MYLAR	0. 0018MF	5%	50V	
C851	1-163-125-11	CERAMIC CHIP	220PF	5%	50V	
C852	1-164-505-11	CERAMIC CHIP	2. 2MF		25V	
C854	1-124-906-11	ELECT	4. 7MF	20%	50V	
C855	1-124-892-11	ELECT	47MF	20%	10V	
C857	1-163-031-11	CERAMIC CHIP	0. 01MF		50V	

CONNECTOR

Ref. No.	Part No.	Description	Remark
CN851	1-564-782-11	PIN, CONNECTOR 4P	
CN852	1-564-782-11	PIN, CONNECTOR 4P	

FILTER

Ref. No.	Part No.	Description	Remark
FL850	1-527-943-11	FILTER, CERAMIC 4. 16MHZ	

IC

Ref. No.	Part No.	Description	Remark
IC850	8-759-904-95	IC BA7077	

COIL

Ref. No.	Part No.	Description	Remark
L850	1-410-450-11	INDUCTOR 3. 9MMH	

TRANSISTOR

Ref. No.	Part No.	Description	Remark
Q850	8-729-901-81	TRANSISTOR 2SC2412K	
Q851	8-729-901-81	TRANSISTOR 2SC2412K	

****

RESISTOR

Ref. No.	Part No.	Description	Remark
R846	1-216-065-11	METAL GLAZE 4.7K 5% 1/10W	
R847	1-216-057-11	METAL GLAZE 2.2K 5% 1/10W	
R848	1-216-057-11	METAL GLAZE 2.2K 5% 1/10W	
R849	1-216-073-11	METAL GLAZE 10K 5% 1/10W	
R850	1-216-057-11	METAL GLAZE 2.2K 5% 1/10W	
R851	1-216-083-11	METAL GLAZE 27K 5% 1/10W	
R854	1-216-109-11	METAL GLAZE 330K 5% 1/10W	

****

*1-637-446-11 VP-24 BOARD (SLV-715VP)
*********** (Ref. No. 5000 series)

CAPACITOR

Ref. No.	Part No.	Description	Remark
C001	1-164-044-11	CERAMIC CHIP 0.1MF 20% 50V	
C002	1-163-989-11	CERAMIC CHIP 0.033MF 10% 25V	
C003	1-163-035-00	CERAMIC CHIP 0.047MF 20% 50V	
C004	1-124-589-11	ELECT 47MF 20% 16V	
C005	1-163-121-00	CERAMIC CHIP 150PF 5% 50V	
C003	1-163-035-00	CERAMIC CHIP 0.047MF 20% 50V	
C007	1-163-105-00	CERAMIC CHIP 33PF 5% 50V	
C008	1-163-105-00	CERAMIC CHIP 33PF 5% 50V	
C201	1-163-035-00	CERAMIC CHIP 0.047MF 20% 50V	
C202	1-163-035-00	CERAMIC CHIP 0.047MF 20% 50V	
C203	1-124-589-11	ELECT 47MF 20% 16V	
C204	1-163-035-00	CERAMIC CHIP 0.047MF 20% 50V	

OSCILLATOR

Ref. No.	Part No.	Description	Remark
CF001	1-567-160-21	OSCILLATOR, CERAMIC 4.19MHZ	

CONNECTOR

Ref. No.	Part No.	Description	Remark
CN102	1-563-528-11	CONNECTOR, BOARD TO BOARD 6P	
CN103	1-566-824-11	PIN, CONNECTOR (PC BOARD) 3P	
CN104	1-506-483-21	PIN, CONNECTOR 4P	

DIODE

Ref. No.	Part No.	Description	Remark
D201	8-719-400-18	DIODE 1S2837	

RESISTOR

Ref. No.	Part No.	Description	Remark
JR001	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR002	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR003	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR004	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR005	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR006	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR007	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR008	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR009	1-216-296-00	METAL GLAZE 0 5% 1/8W	
JR010	1-216-296-00	METAL GLAZE 0 5% 1/8W	

RESISTOR

Ref. No.	Part No.	Description	Remark
R001	1-216-119-00	METAL GLAZE 820K 5% 1/10W	
R002	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R003	1-216-119-00	METAL GLAZE 820K 5% 1/10W	
R004	1-216-067-00	METAL GLAZE 5.6K 5% 1/10W	
R005	1-216-097-00	METAL GLAZE 100K 5% 1/10W	
R006	1-216-121-00	METAL GLAZE 1M 5% 1/10W	
R007	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R008	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R009	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R010	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R011	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R012	1-216-073-00	METAL GLAZE 10K 5% 1/10W	

****

MISCELLANEOUS
****

Ref. No.	Part No.	Description	Remark
5	1-466-346-31	SWITCH BLOCK, CONTROL	
67	⚠ 1-413-601-21	SWITCHING BLOCK (POWER BLOCK) (SLV-715)	
67	⚠ 1-413-608-21	SWITCHING BLOCK(POWER BLOCK) (SLV-715VP)	
67	⚠ 1-413-609-21	SWITCHING BLOCK(POWER BLOCK) (SLV-715UB)	
106	* 1-632-333-11	NM-1 BOARD (SLV-715UB)	
112	* 1-637-444-11	VP-24 BOARD (SLV-715VP)	
123	⚠ 1-466-328-31	MODULATOR, RF (RFU-2027) (SLV-715/VP)	
123	⚠ 1-466-347-31	MODULATOR, RF (RFU-2028) (SLV-715UB)	
125	1-575-746-11	WIRE, FLAT TYPE (22 CORE)	
126	1-558-924-41	CABLE, PIN	
260	1-543-647-11	HEAD, FE (FULL ERASE HEAD)	
285	1-550-536-11	DRUM ASSY, ROTARY UPPER (DZR-17-R)	
305	1-571-920-11	SWITCH, ROTARY	
313	* 1-633-460-11	CA-41 BOARD (ON CAM MOTOR)	
315	1-575-745-11	WIRE, FLAT TYPE (19 CORE)	
D001	8-719-985-00	DIODE GL451VS1 (LED)	
M901	1-550-535-11	DRUM ASSY (DZH-17A-R)	
M902	8-835-395-01	MOTOR, DC U-26G (CAPSTAN MOTOR)	
M903	X-3733-302-1	MOTOR ASSY (CAM MOTOR)	
M904	X-3727-784-1	MOTOR ASSY (LOADING MOTOR)	
ND-201	1-519-633-11	INDICATION TUBE, FLUORESCENT	
Q001	8-729-926-31	PHOTO TRANSISTOR PT484F1S	
Q002	8-729-926-31	PHOTO TRANSISTOR PT484F1S	
TU001	⚠ 1-465-260-11	TUNER, ET (BTP-2C401) (SLV-715/VP)	
TU001	⚠ 1-465-262-11	TUNER, ET (SLV-715UB)	

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ACCESSORY & PACKING MATERIAL
****

Part No.	Description
A-6761-129-A	HEAD BLOCK ASSY, ACE
1-465-751-11	REMOTE COMMANDER (RMT-V5B)
1-551-513-00	CABLE, COAXAL ASSY
1-556-893-21	CORD ASSY, COAXIAL
1-575-334-11	CORD, CONNECTION
3-695-308-01	DRIVER, VOLUME
3-744-025-01	CUSHION (UPPER)
3-744-026-01	CUSHION (LOWER)
3-752-916-11	MANUAL, INSTRUCTION(SLV-715UB) (ENGLISH)
3-752-916-41	MANUAL, INSTRUCTION (SLV-715VP) (GERMAN/FRENCH/DUTCH/ITALIAN)
3-752-916-51	MANUAL, INSTRUCTION (SLV-715) (ITALIAN/PORTUGUESE)
* 3-941-607-01	INDIVIDUAL CARTON

****

HARDWARE LIST
****

Ref. No.	Part No.	Description	Remark
# 1	7-685-647-79	SCREW +BVTP 3X10 TYPE2 IT-3	
# 2	7-682-547-04	SCREW +BVTT 3X6 (S)	
# 3	7-621-732-08	SET-SCT, HEX. 2X3 FLAT POINT	
# 4	7-624-102-04	STOP RING 1.5, TYPE -E	
# 5	7-627-552-08	SCREW, PRECISION +P 1.7X2.5	
# 6	7-628-254-00	SCREW +PS 2.6X5	
# 7	7-682-546-04	SCREW +P 3X5	
# 8	7-682-548-04	SCREW +P 3X8	
# 9	7-682-645-01	SCREW +PS 3X4	
#10	7-685-646-79	SCREW +BVTP 3X8 TYPE2 IT-3	
#11	7-685-648-79	SCREW +BVTP 3X12 TYPE2 IT-3	
#12	7-621-255-25	SCREW +PTT 2X4 (S)	

****

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

SECTION 7
ELECTRICAL ADJUSTMENTS

During the adjustment, see the Parts Arrangement Diagram relevant to the adjustment on page 220.

7-1. PRE-ADJUSTMENT PREPARATIONS

Necessary items and indications for total adjustment of electric circuit of this machine will be described in this chapter.

7-1-1. Instruments to be Used

1) Color TV
2) Oscilloscope 1 or 2 phenomena, band more than 15 MHz, delay mode, as provided.
3) Frequency counter (min, 8 digits)
4) PAL pattern generator
5) SECAM pattern generator (SLV-715VP only)
6) Digital voltmeter
7) Audio level meter
8) Audio generator
9) Attenuator
10) Distortion factor meter
11) Voice multiple signal generator
12) Alignment tape
    Part code: H7099052H (MH-2)
13) HiFi alignment tape

7-1-2. Connection

Unless otherwise specified, connect and adjust the measuring instruments as shown in the following diagram.

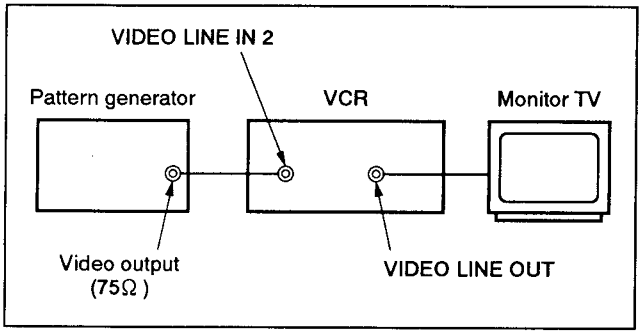

VIDEO LINE IN 2
Pattern generator
VCR
Monitor TV
Video output
(75Ω)
VIDEO LINE OUT

Fig. 7-1.

7-1-3. Setup for Adjustment

In this adjustment, PAL pattern generator is connected with LINE 1 input signal terminal. When check to tuner, connected AERIAL terminal. Check that the amplitudes of video signal SYNC signal, of picture portions, and of burst signals are flat at approximately 0.3, 0.7 and 0.3V, respectively, and that the level ratio of the burst signal and "red" signal are 0.30:0.66. Fig. 7-2. shows video signals (color bars) used in adjusting the video section.

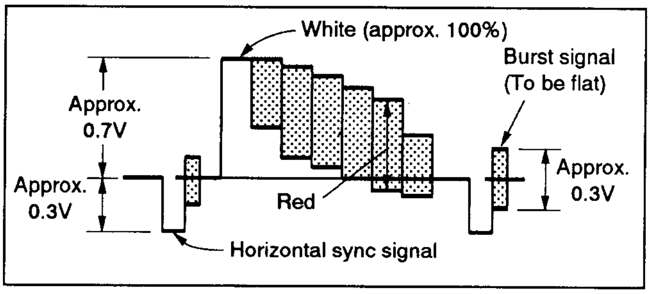

White (approx. 100%)
Burst signal
(To be flat)
Approx.
0.7V
Approx.
0.3V
Red
Approx.
0.3V
Horizontal sync signal

Fig. 7-2.

7-1-4. Alignment Tape (MH-2)

	Time	Video signal	Audio signal
1	10 min	Stair-step	6 kHz
2	5 min	———	3 kHz
3	10 min	Color bar	1 kHz
4	3 min	RF sweep	———

Table 7-1.

7-1-5. Specified I/O Level and Impedance

Input/output terminal

Video inputs	LINE IN: phono jacks EURO-AV: 21-pin (Pin ⑳) 1 Vp-p, 75Ω, unbalanced, sync negative
Audio inputs	LINE IN: phono jacks 47 kΩ, –7.5 dBs (0 dBs=0.775 Vrms) EURO-AV: 21-pin (Pin ② and ⑥) More than 10 kΩ, –4 dBs
Video outputs	LINE OUT: phono jack EURO-AV: 21-pin (Pin ⑲) 1 Vp-p, 75Ω, unbalanced sync negative
Audio outputs	LINE OUT: phono jack –7.5 dBs at load impedance 47 kΩ Output impedance: less than 10 kΩ EURO-AV: 21-pin (Pins ① and ③) Output impedance: less than 1 kΩ –4 dBs with 10 kΩ load

7-1-6. Operating Method When the Front Panel Removed

When adjust with the front panel (SW BLOCK, JOG/SHUTTLE, JS-20 board and TK-12 board) removed, connect the resisters as shown below and operate with the remote commander.

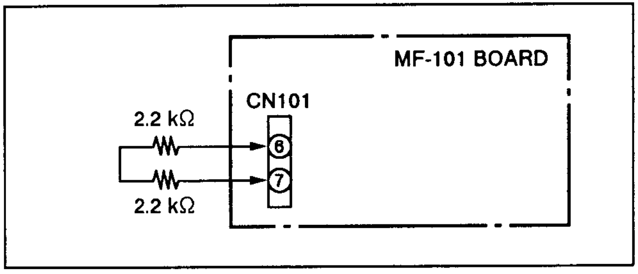
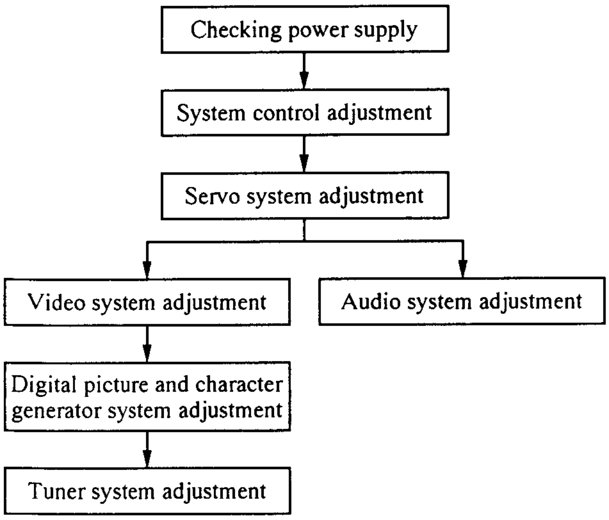

MF-101 BOARD
CN101
2.2 kΩ
2.2 kΩ
⑥
⑦

Fig. 7-3.

7-1-7. Adjusting Sequence

Make the electrical adjustment in the following sequence.


Checking power supply
System control adjustment
Servo system adjustment
Video system adjustment
Audio system adjustment
Digital picture and character generator system adjustment
Tuner system adjustment

7-2. POWER SUPPLY CHECK (POWER BLOCK)

Mode	E-E
Measuring instrument	Digital voltmeter
UNSW 5.8V check	
Measurement point	Pin ① of CN411
Specified value	5.8 ± 0.25 Vdc
UNSW –30V check	
Measurement point	Pin ③ of CN412
Specified value	–30.0 ± 2.5 Vdc
UNSW 37V check	
Measurement point	Pin ⑨ of CN411
Specified value	37.0 ± 3.0 Vdc
SW 5V check	
Measurement point	Pin ③ of CN411
Specified value	$5.00^{+0.15}_{-0.10}$ Vdc
SW 9V check	
Measurement point	Pin ⑬ of CN411
Specified value	9.0 ± 0.3 Vdc
SW 12V check	
Measurement point	Pin ⑪ ofCN411
Specified value	12.0 ± 0.3 Vdc
MTR 12V check	
Measurement point	Pin ⑩ of CN412
Specified value	12.0 ± 0.3 Vdc
HEATER 3.2V check	
Measurement point	+: Pin ⑤ of CN412 –: Pin ④ of CN412
Specified value	3.2 ± 0.2V

Checking method:

1) Confirm that each voltage meets its specified value.

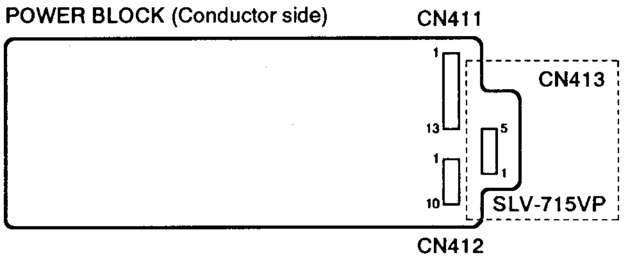

POWER BLOCK (Conductor side)
CN411
CN413
1
13
1
10
5
1
SLV-715VP
CN412

Fig. 7-4.

7-3. SYSTEM CONTROL ADJUSTMENT

7-3-1. Clock Adjustment (MF-94 Board)

Measurement Point	Pin ⑧ of IC201
Measuring Instrument	Interval counter
Adjusting Element	CV201
Specified Value	0.1249995 ± 0.0000005 sec

Connection:

1) Connect the connecting point of R109 and R110 on the MF-101 board to ground.

Adjusting method:

1) Pass a 9-state binary counter through Pin ⑧ of IC201 to divide the 4096 Hz frequency nine times and transform to 8 Hz. Measure the cycle.
2) Adjust CV001 so that an 8 Hz cycle equals 0.1249995 ± 0.0000005 sec.

Note: Do not adjust CV001 except when replacing microcomputers.

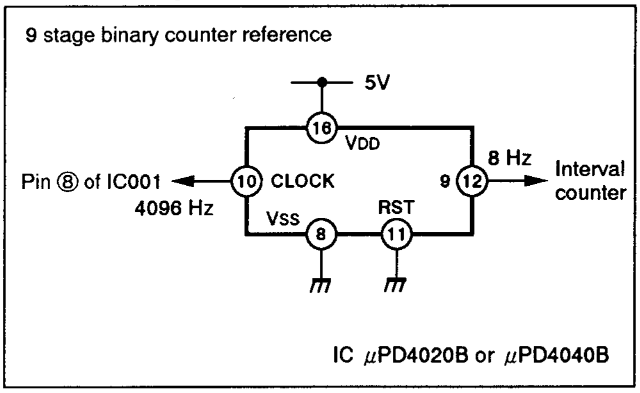

9 stage binary counter reference
5V
16
VDD
8 Hz
Pin ⑧ of IC001
4096 Hz
10
CLOCK
9
12
Interval counter
VSS
8
RST
11
IC μPD4020B or μPD4040B

Fig. 7-5.

7-4. SERVO SYSTEM ADJUSTMENT

7-4-1. Switching Position Adjustment (MA-62 Board)

Mode	PB
Signal	Alignment tape: SP stair-step section
Measurement Point	CH1: Pin ⑱ of CN562 CH2: Pin ⑫ of CN582 (RF SWP)
Measuring Instrument	Oscilloscope
Adjusting Element	RV501
Specified Value	6.5 ± 0.5H (416 ± 32 μsec)

Adjusting method:

1) Once set to STOP mode, then to PB mode.
2) Check that the switching position is 6.5 ± 0.5H. (416 ± 32 μsec)
   If not meet the specified value, turn RV501 and repeat steps 1) to 2).

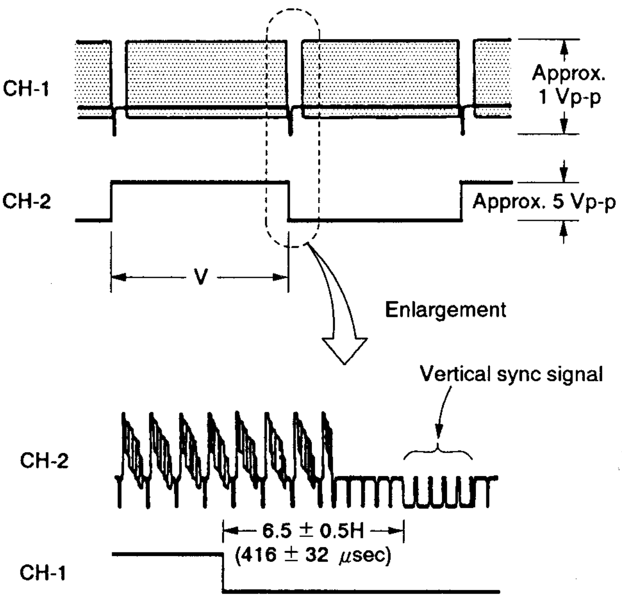

CH-1
Approx. 1 Vp-p
CH-2
Approx. 5 Vp-p
V
Enlargement
Vertical sync signal
CH-2
6.5 ± 0.5H
(416 ± 32 μsec)
CH-1

Fig. 7-6.

7-5. VIDEO SYSTEM ADJUSTMENTS

Adjust the video system in the following sequence as a rule. The color video signal supplied from the pattern generator is used as a video input signal for video system adjustment in the recording mode.
Make sure that sync and color burst signals meet requirements specified at setup of adjustment shown in Fig. 7-2.

[Adjusting sequence]

7-5-1. Playback Y Signal Level Adjustment
7-5-2. Y Signal NR Level Adjustment
7-5-3. Sync AGC Adjustment
7-5-4. Sync Tip Carrier Set and Deviation Adjustment
7-5-5. White Clip, Dark Clip Adjustment
7-5-6. Recording Y Signal Level Adjustment
7-5-7. Recording Chroma Level Adjustment
7-5-8. PAL JOG AFC Adjustment
7-5-9. 0.5H CCD Level Adjustment
7-5-10. SECAM Discrimination Adjustment

7-5-1. Playback Y Signal Level Adjustment (YC-65 Board)

Mode	PB
Signal	Alignment tape: SP color bar section
Measurement Point	VIDEO LINE OUT terminal
Measuring Instrument	Oscilloscope
Adjusting Element	RV708
Specified Value	1.00 ± 0.05 Vp-p

Note: 1) Make this adjustment with the EDIT ON/OFF button set to off.
2) VIDEO LINE OUT terminal must be terminated at 75Ω ± 1%.

Adjusting method:
1) With RV708, adjust the VIDEO signal level to 1.00 ± 0.05 Vp-p.

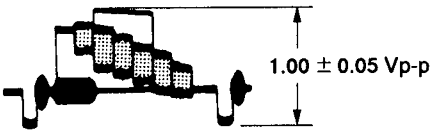


Fig. 7-7.

7-5-2. Y Signal NR Level Adjustment (YC-65 Board)

Mode	PB
Signal	Alignment tape: SP color bar section
Measurement Point	Pin ⑩ of IC701
Measuring Instrument	Oscilloscope
Adjusting Element	RV707
Specified Value	Less than 30 mVp-p

Adjusting method:
1) Adjust to eliminate level differences for each H step with RV707.

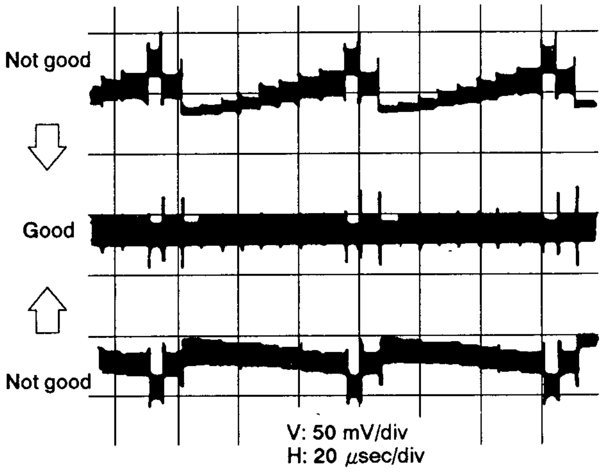


Fig. 7-8.

7-5-3. Sync AGC Adjustment (YC-65 Board)

Mode	E-E
Signal	Color bar
Measurement Point	VIDEO LINE OUT terminal
Measuring Instrument	Oscilloscope
Adjusting Element	RV701
Specified Value	1.00 ± 0.05 Vp-p

Note: VIDEO LINE OUT terminal must be terminates at 75Ω .

Adjusting method:
1) With RV701, adjust the VIDEO signal level to 1.00 ± 0.05 Vp-p.

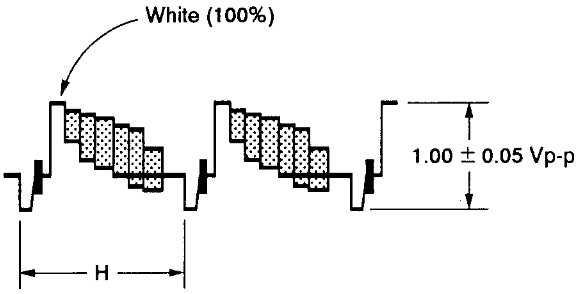


Fig. 7-9. SYNC AGC adjustment

7-5-4. Sync Tip Carrier Set and Deviation Adjustment (YC-65 Board)

Before starting the adjustment, be sure to check that recording Y signal level adjustment has been completed.

Sync tip carrier set	
Mode	E-E
Signal	No signal (Note 2)
Measurement Point	Pin ㉔ of IC701
Measuring Instrument	Frequency counter
Adjusting Element	RV703
Specified Value	3.80 ± 0.05 MHz
Deviation adjustment	
Mode	REC and PB
Signal	Color bar
Measurement Point	VIDEO LINE OUT terminal
Measuring Instrument	Oscilloscope
Adjusting Element	RV702
Specified Value	1.00 ± 0.05 Vp-p

Note 1) VIDEO LINE OUT terminal must be terminated at 75Ω.

2) To make no signal input, insert a shorting plug into VIDEO LINE IN 2 terminal.

Adjusting method:

1) Make a no signal state and select the E-E made.
2) Connect the frequency counter to the Pin ㉔ of IC701 and adjust to 3.80 ± 0.05 MHz with RV703.
3) Input the color bar signal to make recording.
4) Playback the recorded tape portion and check that the playback Y signal level is 1.00 ± 0.05 Vp-p.

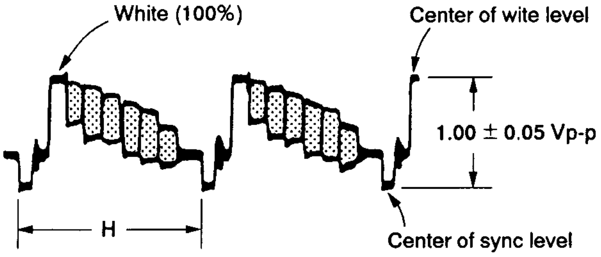


Fig. 7-10. Deviation adjustment

5) When the specified value is not met, input the color bar signal to select the E-E mode. Adjust RV702 to correct a playback Y signal level error, and then, repeat the steps 1) through 4) above.

7-5-5. White Clip and Dark Clip Adjustments (YC-65 Board)

Mode	E-E
Signal	Color bar
Measurement Point	Pin ⑳ of IC701
Measuring Instrument	Oscilloscope
Adjusting Element	White clip: RV705 Dark clip: RV704
Specified Value	White clip: 180 ± 10% Dark clip: 40 ± 10%

Adjusting method:

1) With RV705, adjust the white clip level to 180 ± 10% of the white level (100%).
2) With RV704, adjust the dark clip level to 40 ± 10% of the white level (100%).

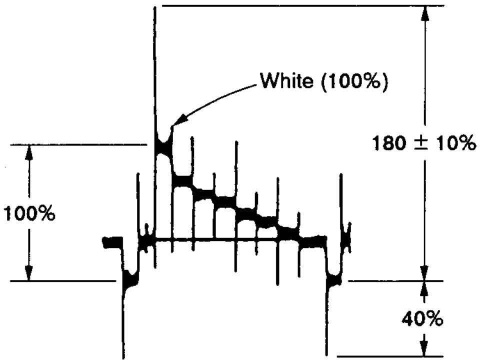


Fig. 7-11.

7-5-6. Recording Y Signal Level Adjustment (YC-65 Board/RP-63 Board)

Mode	RE
Signal	No signal
Measurement Point	Pin ③ of CN804 (RP-63 board)
Measuring Instrument	Oscilloscope
Adjusting Element	RV710 (YC-65 board)
Specified Value	1.7 ± 0.1 Vp-p

Adjusting method:

1) With RV710, adjust the Y REC RF signal level to 1.00 ± 0.05 Vp-p.

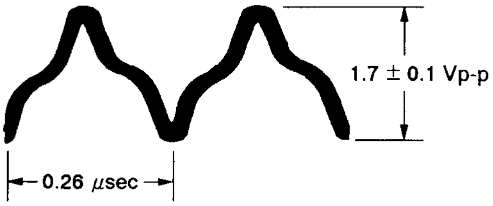


Fig. 7-12.

7-5-7. Recording Chroma Level Adjustment (YC-65 Board)

Mode	E-E
Signal	Color bar
Measurement Point	Pin ⑦ of CN701
Measuring Instrument	Oscilloscope
Adjusting Element	RV801
Specified Value	100 ± 10 mVp-p

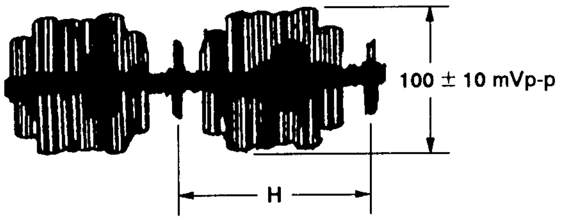


Fig. 7-13.

7-5-8. PAL JOG AFC Adjustment (YC-65 Board)

Mode	E-E
Signal	Color bar
Measurement Point	Pin ⑲ of IC860
Measuring Instrument	Digital voltmeter
Adjusting Element	RV860
Specified Value	2.65 ± 0.05 Vdc

Adjusting method:

1) Adjust RV860 so that the voltage at Pin ⑲ of IC860 become 2.65 ± 0.05 Vdc.
   At this time confirm that the cycle of delta wave at Pin ⑳ of IC860 is 32 µsec.

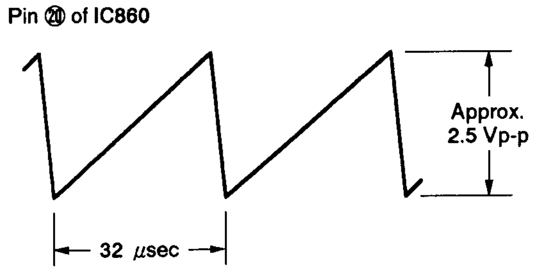


Fig. 7-14.

7-5-9. 0.5H CCD Level Adjustment (YC-65 Board)

Mode	E-E
Signal	Color bar
Measurement Point	Pin ② of IC802
Measuring Instrument	Oscilloscope
Adjusting Element	RV861
Specified Value	Same signal level with Pin ⑦ of IC802.

Adjusting method:

1) Measure the signal level at Pin ⑦ of IC802.
   (Approx. 2 Vp-p)
2) Adjust RV861 so that the signal levels at Pins ② and ⑦ of IC802 become same.

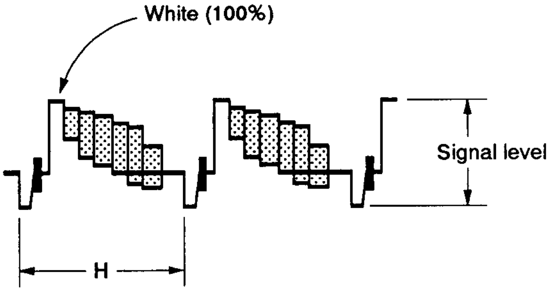


Fig. 7-15.

7-5-10. SECAM Discrimination Adjustment (SD-4 Board) (SLV-715VP Only)

Mode	E-E
Signal	SECAM Color bar
Measurement Point	Pin ⑨ of IC850
Measuring Instrument	Oscilloscope
Adjusting Element	RV850
Specified Value	4.5 ± 0.1 Vp-p

Adjusting method:

1) Adjust RV850 so that the amplitude of 1/2 fH waveform becomes 4.5 ± 0.1 Vp-p.

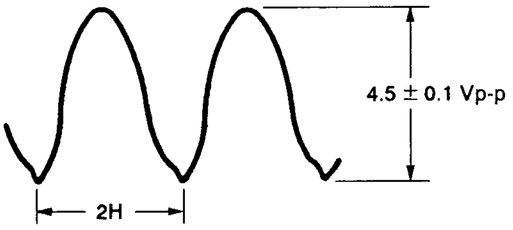


Fig. 7-16.

7-6. ON SCREEN DISPLAY ADJUSTMENTS

7-6-1. Character Generator Clock Check (CG-10 Board)

Mode	E-E
Signal	No signal
Measurement Point	Pin ㉘ of IC851
Measuring Instrument	Frequency counter
Specified Value	17.734476 MHz ± 100 Hz

Note: Attach 10 kΩ register to tip of the probe.

Checking method:

1) Confirm that the clock oscillation frequency is 17.734476 MHz ± 100 Hz.

7-6-2. AFC Adjustment (CG-10 Board)

Mode	E-E
Signal	No signal
Measurement Point	Pin ⑧ of IC685
Measuring Instrument	Oscilloscope
Adjusting Element	RV685
Specified Value	15625 ± 50 Hz

Connection:

1) Connect Pins ① and ⑨ of IC685 with 1 kΩ resistance.

Adjusting method:

1) Adjust RV685 so that the oscillation frequency is 15625 ± 50 Hz.

7-6-3. Character Position confirmation (CG-10 board)

Mode	Playback
Signal	Alignment tape, color bar or stair case
Measurement Point	Pin ⑤ of IC851 (Note 1)
Measurement Equipment	Frequency counter
Specified Value	7.00 ± 0.02 MHz
Adjusting Element	CV851

Note : Connect a probe of high input impedance (1 MΩ or more) and low capacity (10 pF or less) to the measurement point through 1 kΩ resistor.

Confirmation Method:

1) Adjust to 7.00 ± 0.02 MHz with CV851.
2) Make sure that tracking indication appears at the nearly center of the width when manual tracking ON.

7-7. AUDIO SYSTEM ADJUSTMENTS

- Adjust the audio system in the LP mode, unless otherwise specified.
  Use the alignment tape.
- Adjust both Lch and Rch.

[Connection]

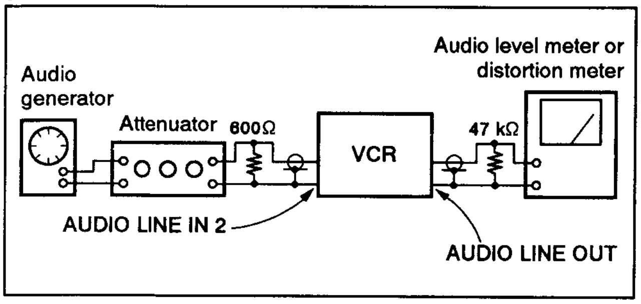


Fig. 7-24.

7-7-1. Hi-Fi Audio System Adjustment

- Set switches and knobs to the following positions to make adjustment unless otherwise specified.
  INPUT SELECT switch......LINE 2
  REC LEVEL knob......Set to –21 dBs.
  (Pins ① and ② of CN572 on MA-62 board)
- When perform the adjustment after removing the PI-20 board, connect Pin (A13) of CN583 and Pin (B10) of CN584 on the MA-62 board with jumper wire.
- When the tuner block is obstructive for adjustment, remove it.

[Adjusting sequence]

1. VCO fo adjustment
2. Switching pulse portion adjustment
3. Playback RF level adjustment
4. Playback level adjustment
5. AFM deviation adjustment
6. Level meter adjustment

1. VCO fo adjustment (HF-9 board)

Mode	Recording
Signal	No signal
Measuring instrument	Frequency counter
1.3 MHz Adjustment	
Measurement point	Pin ③ of IC002
Adjusting element	RV008
Specified value	1.4 MHz ± 2 kHz
1.7 MHz Adjustment	
Measurement point	Pin ㉚ of IC002
Adjusting element	RV002
Specified value	1.8 MHz ± 2 kHz

Note: Connect the frequency counter through a probe of high input impedance (more than 10 MΩ) and low capacity (10 pF or less).

Checking method:

1) Connect the frequency counter to each measurement point.
2) Confirm that each frequency meet its specified value.

2. Switching pulse portion adjustment (HF-9 board)

Mode	PB
Signal	Alignment tape (HiFi 400 Hz)
Measurement Point	CH1: Pin ⑨ of CN571 (MA-62 board) CH2: Pin ⑮ of CN571 (MA-62 board)
Measuring Instrument	Oscilloscope
Adjusting Element	RV006
Specified Value	Fig. 7-25.

Adjusting method:

1) Adjust RV006 for no dropout.
   (Turn and adjust RV006 to the mid-rotation of no dropout range.)

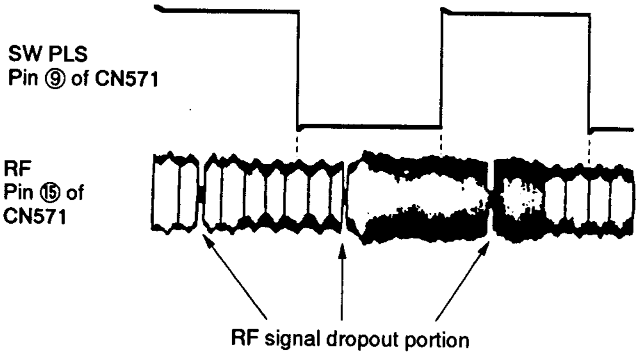


Fig. 7-25.

3. Playback RF level adjustment (HF-9 board)

Mode	PB
Signal	Alignment tape (MH-2): Stair-step section
Measurement Point	Pin ⑪ of IC002
Measuring Instrument	Oscilloscope (DC range)
Adjusting Element	RV005
Specified Value	50 mVp-p

Connection:

1) Remove CN532 on MA-62 board, and input sine waveform of 1.4 MHz ± 2 kHz, 70 mVp-p to Pins ③ and ④ of CN571 from the signal generator.

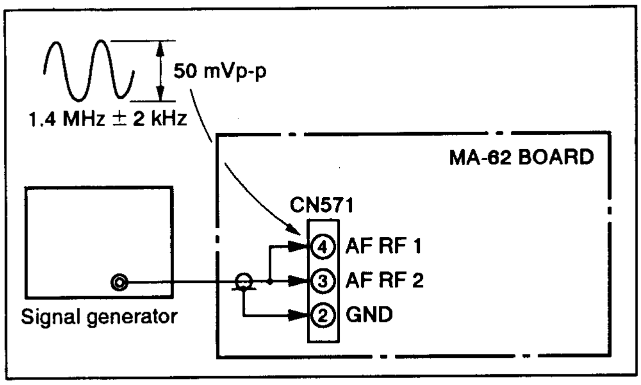


Fig. 7-26.

2) Connect the headset to the headphone terminal, and monitor the playback sound.

Adjusting method:

1) Turn RV005 fully counterclockwise (○) seeing from the soldering side of MA-62 board.
2) Confirm that the level at Pin ⑪ of IC002 is "L" (0V) and there is no playback sound.
3) Turn RV005 slowly clockwise (○) until the level at Pin ⑪ of IC002 becomes "H" (3.3V or more). Then, confirm that the audio signal of 6 kHz is played back.

4. Playback level adjustment (HF-9 board)

Mode	PB
Signal	Alignment tape (HiFi 400 Hz)
Measurement Point	Lch: AUDIO LINE OUT L Rch: AUDIO LINE OUT R
Measuring Instrument	Audio level meter
Adjusting Element	Lch: RV007 Rch: RV004
Specified Value	-7.5 ± 0.1 dBs

Adjusting method:

1) Adjust a playback level to -7.5 ± 0.1 dBs for both L and R channels with RV007 and RV004, respectively.

5. AFM deviation adjustment (HF-9 board)

Mode	Recording and Playback
Signal	400 Hz, -7.5 dB: AUDIO LINE IN 2 L, R
Measurement Point	Lch: AUDIO LINE OUT L Rch: AUDIO LINE OUT R
Measuring Instrument	Audio level meter
Adjusting Element	Lch: RV009 Rch: RV003
Specified Value	-7.5 ± 0.5 dBs

Adjusting method:

1) Confirm the 400 Hz signal level at Pins ② (Lch) and ① (Rch) of CN572 on the MA-62 board is -21 ± 0.1 dBs.
2) Record the signals.
3) Play back the recorded portion.
4) Confirm that the AUDIO LINE OUT level meets the specification.
   If not, turn RV009 (Lch) or RV003 (Rch), and repeat steps 2) to 4).

6. Level meter adjustment (MF-94 board)

Mode	E-E
Signal	1 KHz, -7.5 dBs: AUDIO LINE IN 2 L, R
Measurement Point	REC level meter
Measuring Instrument	
Adjusting Element	Lch: RV201 Rch: RV202
Specified Value	0 dB

Adjusting method:

1) Adjust the REC level controls (L/R) so that the signal level at AUDIO LINE OUT is -6.5 ± 0.1 dBs.
2) Adjust RV201 (Lch) and RV202 (Rch) so that the REC level meters (L/R) indicate 0 dB, respectively.

7-7-2. Normal Audio System Adjustment

- Make adjustment in the SP mode, unless otherwise specified. Use a normal VHS cassette for an adjustment tape.
- Make adjustment with the switches set to the following positions.
  INPUT SELECT......LINE 2
- Set the AUDIO MONITOR mode to NORMAL on the menu screen.

[Adjusting sequence]

1. ACE head adjustment......See Mechanism Block Adjustment
2. E-E output level check
3. Recording bias adjustment
4. Overall level characteristic and distortion factor check
5. Overall S/N check

1. ACE head adjustment

See "Mechanism Block Adjustment".

2. E-E output level check

Mode	E-E
Signal	L, R : 400 Hz, –7.5 dBs
Measurement Point	AUDIO LINE OUT L or R
Adjusting Element	Audio level meter
Specified Value	–7.5 ± 2 dBs

Confirming method:

1) Simultaneously input a signal of 400 Hz, –7.5 dBs to both L and R channels of Audio Line Input.
2) Confirm that the audio output level is –7.5 ± 2 dBs.

3. Recording bias adjustment (MA-62 board)

Mode	REC and PB
Signal	400 Hz, –30 dBs 7 kHz, –30 dBs
Measurement Point	AUDIO LINE OUT L or R
Measuring Instrument	Audio level meter
Adjusting Element	RV251
Specified Value	0 ± 1 dB

Adjusting method:

1) Supply a signal of 400 Hz, –30 dBs to Audio Line Input.
2) Connect the audio level meter to the Audio Line Output.
3) Adjust the attenuator so that the audio level meter will indicate –30 dBs.
4) Make recording in the SP mode.
5) Set an audio line input signal to 7 kHz and make recording.
6) Playback a recorded portion, and measure output levels at 400 Hz and 7 kHz.
7) Confirm that the 7 kHz playback output levels within a range of the 400 Hz playback output level 0 ± 1 dB. When beyond this range, adjust RV251 and repeat the steps 1) through 7) above.

4. Overall level characteristic and distortion factor check

Mode	REC and PB
Signal	400 Hz, –7.5 dBs
Measurement Point	AUDIO LINE OUT L or R
Measuring Instrument	Audio level meter and distortion factor gauge
Specified Value	Playback level: –7.5 ± 2 dBs Distortion factor: 4% or less

Confirming method:

1) Supply an audio signal of 400 Hz, –7.5dBs simultaneously to both L and R channels of Audio Line Input.
2) Make recording.
3) Playback a recorded portion.
4) Confirm that a playback level is –7.5 ± 2 dBs.
5) Confirm that a distortion factor is within 4%.

5. Overall S/N check

Mode	REC and PB
Signal	400 Hz, –7.5 dBs, and no signal
Measurement Point	AUDIO LINE OUT L
Measuring Instrument	Audio level meter
Specified Value	38 dB or more

Confirming method:

1) Supply a signal of 400 Hz simultaneously to both L and R channels of Audio Line Input.

Adjust the attenuator so that the L channel audio line output level will be –7.5 dBs.

2) Make recording.
3) With the REC mode held, make the no signal state. (Short an input for both L and R)
4) Playback a recorded portion, and confirm that there is a level difference of 38 dB or more between 400 Hz portion and no signal portion (immediately after a 400 Hz signal).

7-8. TUNER SYSTEM ADJUSTMENTS

7-8-1. RF AGC Adjustment (IF001 Unit/TU-120 Board)

Signal	Broadcast TV signal
Adjusting Element	VR of IF001 unit (Fig. 7-27.)

Adjusting method:

1) Adjust the monitor TV to a maximum contrast.
2) Turn the VR to make snow noise visible.
3) Turn the VR in an opposite direction and set it to the point where the snow noise disappears.
4) Receive each channel and confirm that there are no beat picture corruption snow noise due to cross modulation.

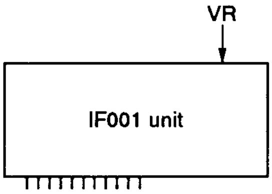


Fig. 7-27.

7-8-2. Receive Separation Adjustment (TU-120 Board) (SLV-715VP)

Signal	Stereo Lch: 400 Hz, 100% modulation Rch: No modulation
Connection Point	AUDIO LINE OUT R
Measuring Instrument	Oscilloscope
Adjusting Element	RV001

Setting of switches:

- RV103 (MF-101 board)......Center click
- RV104 (MF-104 board)......Center click

Adjusting method:

1) Set the sound multiplex signal generator in the Stereo mode, and set only Lch to 400 Hz, 100% modulation.
2) Connect the oscilloscope to the Rch of Audio Line Output.
3) Adjust rv001 to minimize Rch output.
   When this is done, do not fully turn RV001.
   (The "STEREO" indication must be illuminated).

7-9. NAICAM SYSTEM ADJUSTMENTS (SLV-715UB)

7-9-1. Eye Pattern Adjustment (NA-7 Board)

Mode	NAICAM ch received
Signal	Color bar
Measurement Point	CH1: Pin ⑲ of IC001 CH2: Pin ⑳ of IC001
Measuring Instrument	Oscilloscope (X-Y mode)
Adjusting Element	CV01

Adjusting method:

1) Confirm that waveform as OK in Fig observed clearly and with out tilt.

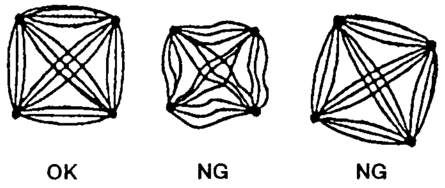


Fig. 7-28.

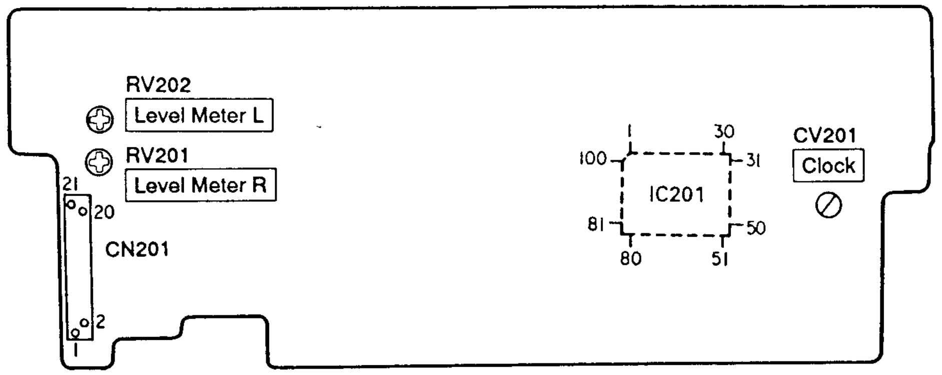
7-9-2. VCO Adjustment (NA-7 Board)

Mode	NICAM ch received
Signal	no-signal
Measurement Point	Pin ㉖ of IC001
Measuring Instrument	Frequency counter
Adjusting Element	CV02
Specified Value	5.824 MHz ± 30 Hz

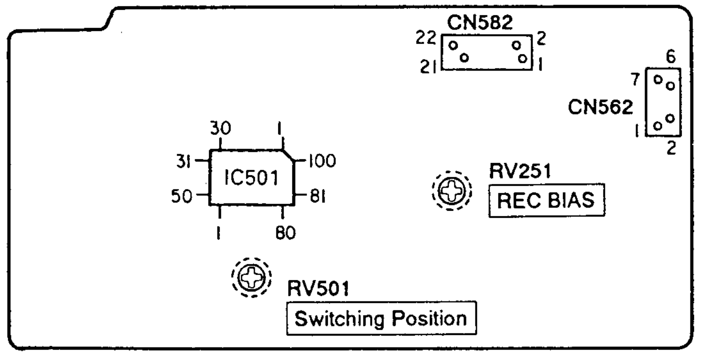
Note: Shorted Pins ⑫ and ㉑ of IC001.

7-10. ADJUSTMENT PARTS ARRANGEMENT DIAGRAM

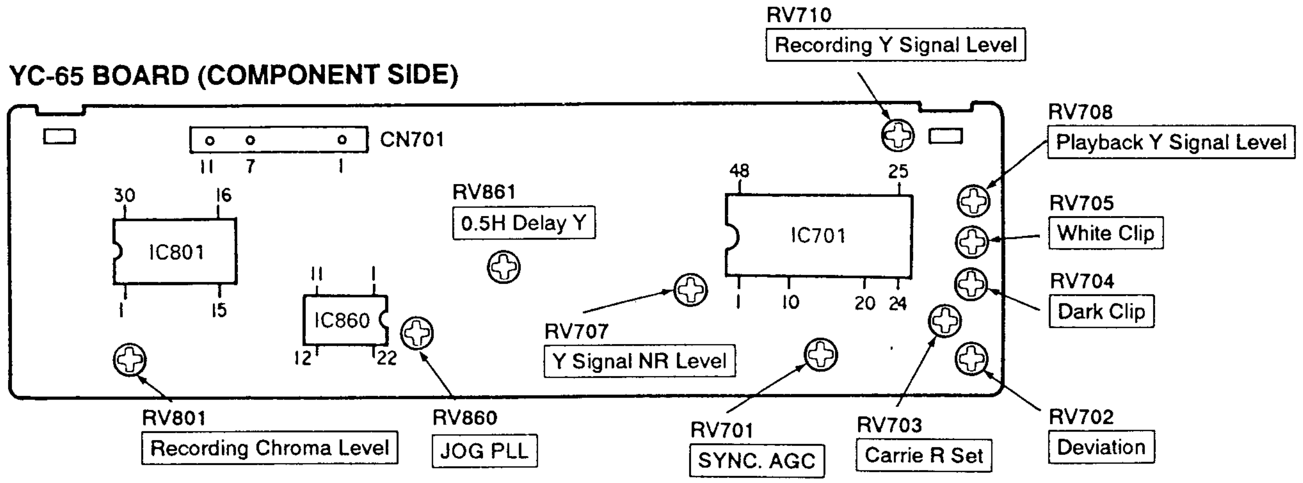
MF-94 BOARD (COMPONENT SIDE)


RV202
Level Meter L
RV201
Level Meter R
21
20
CN201
2
1
1
30
100
31
IC201
81
50
80
51
CV201
Clock

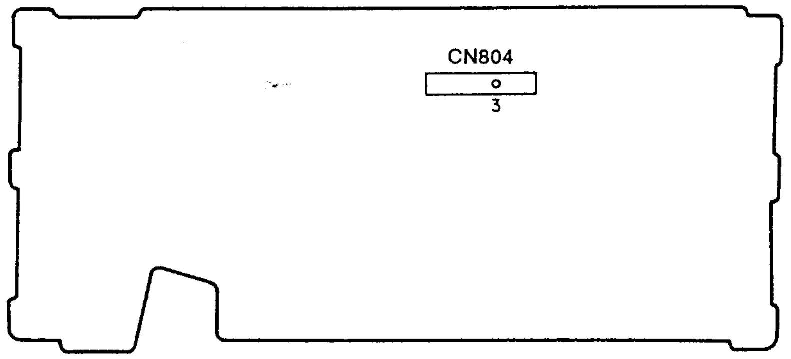
MA-62 BOARD (CONDUCTOR SIDE)


CN582
22
2
21
1
6
7
CN562
1
2
30
1
31
100
IC501
50
81
1
80
RV251
REC BIAS
RV501
Switching Position

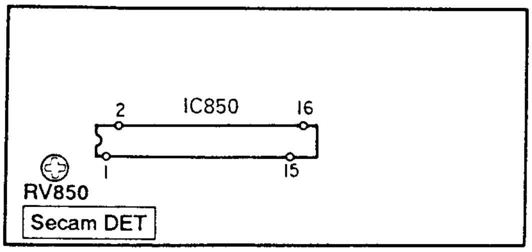
YC-65 BOARD (COMPONENT SIDE)


RV710
Recording Y Signal Level
CN701
11
7
1
30
16
IC801
1
15
11
1
IC860
12
22
RV861
0.5H Delay Y
48
25
IC701
1
10
20
24
RV707
Y Signal NR Level
RV708
Playback Y Signal Level
RV705
White Clip
RV704
Dark Clip
RV702
Deviation
RV801
Recording Chroma Level
RV860
JOG PLL
RV701
SYNC. AGC
RV703
Carrie R Set

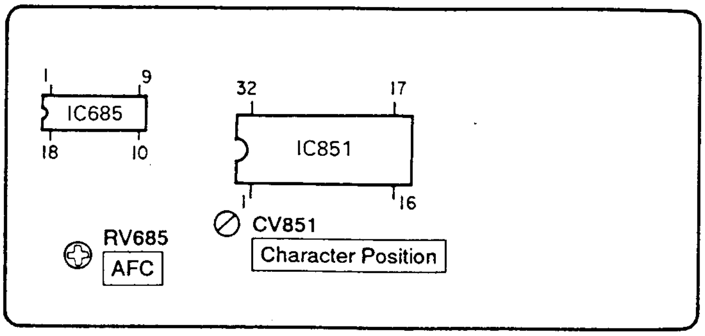
RP-63 BOARD (COMPONENT SIDE)



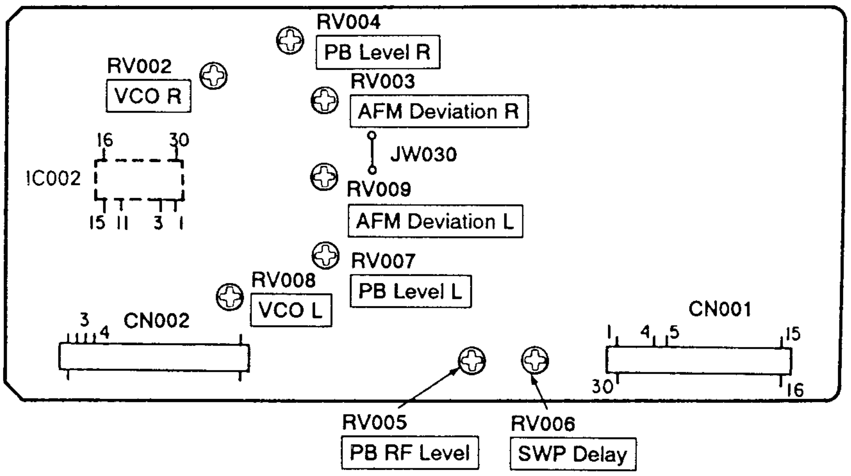
SD-4 BOARD (COMPONENT SIDE)


2
IC850
16
1
15
RV850
Secam DET

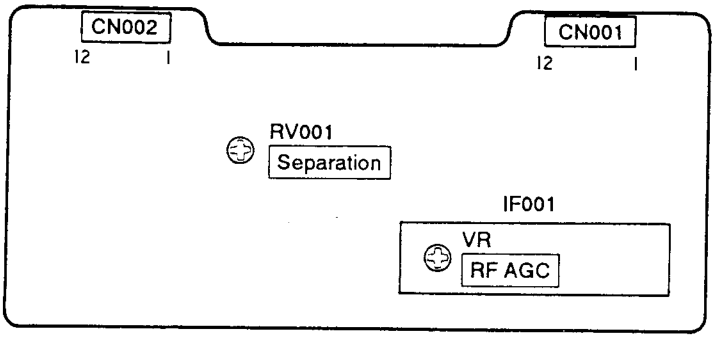
CG-10 BOARD (COMPONENT SIDE)


1
9
IC685
18
10
32
17
IC851
1
16
CV851
Character Position
RV685
AFC

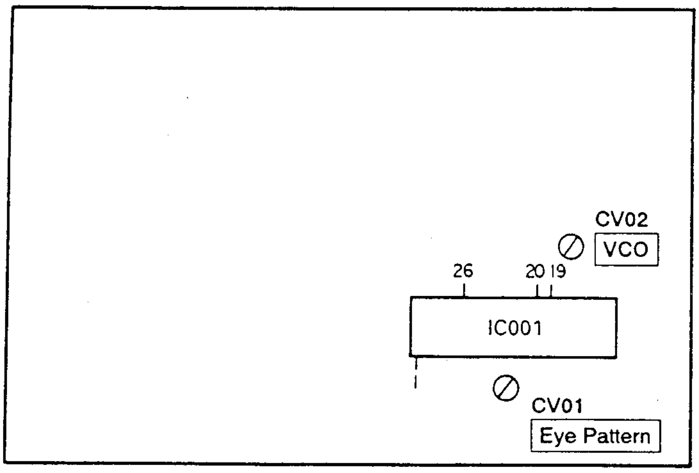
HF-9 BOARD (COMPONENT SIDE)


RV004
PB Level R
RV002
VCO R
RV003
AFM Deviation R
16
30
IC002
15
11
3
1
JW030
RV009
AFM Deviation L
RV007
PB Level L
RV008
VCO L
3
4
CN002
CN001
1
4
5
15
30
16
RV005
PB RF Level
RV006
SWP Delay

TU-120 BOARD (COMPONENT SIDE)


CN002
12
1
CN001
12
1
RV001
Separation
IF001
VR
RF AGC

MA-7 BOARD (COMPONENT SIDE)


CV02
VCO
26
20
19
IC001
1
CV01
Eye Pattern